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## J.M.THOREURN \& CO.

33 Barclay St., and 38 Park Place, New York.

## COMPLETE ASSORTMENT OF KITCHEN-GARDEN SEEDS FOR PRIVATE FAMILIES

These assortments contain only the choicest sorts, and are sure to give satisfaction. The proportions are arranged to suit large and small gardens.



## J. M. THORBURN \& CO.

 ONE - HUNDRED - AND-EIGHTH ANNUAL CATALOGUE OF HIGH-CLASS SEEDS
## Reminiscent

 EW YORK was a comparatively small town of some 60,000 inhabitants when the foundation of what was destined to become one of the most important seed businesses in America was laid. That was away back in 1802.Grant Thorburn landed in New York in the summer of 1794 " with funds reduced to three English coppers" and without a friend to whom he could turn for advice or assistance.

He was a man of probity and worth, and was possessed of many of the attributes that have made men great.

Fortune frowned on his efforts for awhile but he managed to keep his head above water, and the sequel is the best evidence of his dogged determination to succeed.

How he conceived the idea of pa riting his empty flower pots which had comprised part of the stock of his grocery store, and how to further encourage their sale and to attract more attention to them he potted a geranium which quickly found a purchaser, and how finally a demand sprang up for seeds, is an interesting tho' oft told tale,

The success of the Thorburn business and the relative position of importance it occupies in the commercial world of today, is, in a great measure, due to the conservation of the solid principles laid down by our founder one hundred and seven years ago.

The date of the Grant Thorburn invoice which we here reproduce recalls an all-important epoch in the history of our country for it was only a month or two earlier that the United States had declared war against England.

## J. M. Thorburn \& Co., New York



HIS is our One Hundred-and-Eighth successive Annual Catalogue. We are growers of and dealers in High-Class Seeds only. Quality is our watchword.

It is important that orders be sent on receipt of this Catalogue, instead of writing till the spring, when we are so busy that there is sometimes unavoidable delay in filling them, even by night work.

Cultural Directions.-These apply to the climate of New York and vicinity. For more northern and southern localities the necessary changes in time of sowing, etc., will readily suggest themselves to gardeners.
When desired, we will select suitable seeds if the size of garden or the sum proposed to be expended is stated.

Orders should be written on our order sheet or on a blank sheet separate from letter, and to receive prompt attention should be directed to the firm, and not to individuals. Orders from new customers should be accompanied by a remittance in the form of a Post Office or Express Money Order, Bank Check or Bank Bills.

## PRICES.-The prices quoted are net, and do NOT include free transit, EXCEPT FOR SEEDS IN PACKETS, OUNCES or QUARTER-POUNDS, on which WE pay postage or expressage.

Seeds by Mail or Express. - 8 cents per pound should be added if wanted by mail or prepaid express, except for seeds ordered by the packet, ounce or $1 / 4 \mathrm{lb}$., which we mail free. By special arrangement with the express companies we can ship seeds and bulbs at a reduction of 20 per cent from the regular rates. Unless otherwise instructed, we send orders from parties unknown to us, C. O. D.

It sometimes happens that certiin articles are not ready when the bulk of the goods ordered are shipped. In such cases, rather than hold back the whole order, we send what is ready and keep a memorandum of what is to follow when available. Customers would therefore, in such cases, do well to await our advices or invoices before writing in regard to items not sent them.

Name, Address, etc.-We beg our correspondents to give us on EACH order the correct name and address; also to indicate very precisely the means of carriage which they prefer, mail, express or freight and the office or railroad station which best serves their locality. In case these directions are not followed out, or if they are not sufficient, we shall ourselves choose the most advantageous and convenient means, but entirely at the risk of the customer.

Warranties.-Seeds of best quality will often fail through improper treatmeit. Thus, a small seed may be sown so deeply that the young plant cannot reach the surface. More failures result from disregard of the conditions necessary to germination than from inferiority of the seeds used. These conuitions are: a proper temperature, sufficient moisture, and free access of air. Besides these, the soil must be in proper condition, and present no physical obstacle to the growth of the young plant. If heavy rains have compacted the surface of the soil, and the sun has baked it to a hard crust, it will be impossible, even if all other conditions are favorable, for the seedling plants to force their way through it, and many perish from this cause alone. Seeds differ greatly as to the temperature required for germination. Beets, Cress, Peas, etc., germinate rapidly at a temperature of $45^{\circ}$; but if Melons and other seeds of that family, bush or pole Beans, and other plants of subtropical origin, are sown under the same conditions, they will be apt to decay, as for their prompt germination they require a heat of at least $60^{\circ}$. For this reason many seeds fail yearly from too early sowing. The second condition, proper moisture, is likely to be violated by an excess rather than by too small a portion. The proper amount is that which a well-drained soil will naturally hold. Free access of air is all-important, and this is interfered with by an excess of water in the soil. In germination complex chemical changes take place in the seeds, in which the air performs an important part. A portion of the seed is consumed, carbonic acid gas being given off in changing the starch and other constituents of the seed into nutriment to forward the growth of the germ or embryo plant, which depends upon the contents of the seed until it forms roots below ground and leaves above, and is able to sustain itself. Besides these conditions affecting the germination of the seed, the young plants, after they have made their way to the surface, are liable to various accidents; a sudden current of very cold air, or a continuous drying wind, may check their growth, or destroy them altogether. In addition, there are numerous insects, both below and above ground, that may attack the plants, some of them being so small that they often destroy a crop before they are discovered. We may also mention the well-known tendency of many vegetables to revert to their original types, notwithstanding the care of the seed-grower, the yellow-podded wax Beans becoming green, the yellow and white Celery becoming more or less green, dwarf Peas becoming "unning sorts, etc.
J. M. Thorburn \& Co. give no warranty, express or implied, as to description, quality, productiveness, or any other matter of any seeds, bulbs or plants they send out, and they will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they are at once to be returned.
F. W. BRUGGERHOF, President
E. E. BRUGGERHOF, Vice-President and Treasurer
J. J. WILSON, Secretary
J. M. THORBURN \& CO.


Shipping and Receiving Department, Park Place Entrance

## Directions for the Cultivation of Vegetables

To secure a good crop of vegetables, three things at least are necessary; viz., a suitable soil, pure seed and clean culture. The exposure for a vegetable-garden should be perfectly south or southeast, or nearly so. The soil should be naturally rich and friable, a sandy loam being about the best. If the soil be stiff, it should be gradually mellowed by the free use of barnyard manure, or, if convenient, by the addition of sand. If wet, or inclined to hold an excess of moisture, it should be underdrained preferably by tile; but, if possible, a location should be selected naturally dry and free from surface water.

A dark-colored soil, or one supplied with a goodly portion of decayed vegetable matter, will produce the earliest crops. If the soil be shallow, it should be deepened gradually by plowing or spading an inch or two deeper each year, and not all at once by trenching or subsoiling, unless manure and money both be abundant. A sandy soil may be greatly improved by adding more or less vegetable mould from the woods. To produce the best results, the vegetable garden should have at least one foot of good, rich soil. The roots of large trees should not be allowed to encroach on any part of the garden, though large trees, especially evergreens, sufficiently far off, afford a valuable protection on the north and west.

Mark the garden off into squares or beds of convenient size, to facilitate the practice of a rotation of crops, which is an important matter. As a rule, never let the same crop or kind of vegetable occupy the same bed or spot two years in succession. Potatoes, onions, and a few other things, may form an exception to this rule, but it is, nevertheless, better to keep up rotation. Every year these beds must be warmed up by a liberal coat of manure, which should be thoroughly mixed with the soil. Grow everything in drills or straight lines. Larger crops from a given surface are grown in this way, and cultivation becomes simple and comparatively easy. The space between the drills, and other special information, is given in the body of the Catalogue; the least distance is named, in order to economize space; it might be increased in some cases to advantage. The ground should be frequently hoed, to kill the weeds and keep the soil mellow; and the proper time to hoe is just when the weeds appear above the ground. Briefly, the proper way to kill weeds is never to let them grow; but, whether weeds appear or not, the ground should be frequently stirred.

Much time may be gained by starting certain kinds of plants in a hotbed, or even in a coldframe, the latter being a very convenient thing, even on a small place. The hotbed is chiefly intended for raising early Tomatoes, Eggplants, Peppers, Cabbage, Cauliflowers, Lettuce, etc., but as all these plants can now be
bought cheaply of the seedsmen at the proper time, the expense and labor of a hotbed may be dispensed with, especially on small places.

To prepare a coldframe. - The coldframe is simply a frame set on the ground, no bottom heat being applied. It is banked up on the outside during the winter with salt hay, straw or coarse litter. The soil is prepared by forking in and thoroughly mixing to the depth of 10 or 12 inches a liberal quantity of old, well-rotted manure. The manure of an old hotbed is good for the purpose. The frame is prepared in the fall, and young Cabbage, Cauliflower and Lettuce plants are set out in it in time to get well established before very cold weather. Cauliflower and Cabbage should be set down to the first leaf, and the soil made firm around the plants. The seed is usually sown, in the vicinity of New York, from the 15 th to the 20th of September, but the very early kinds some 8 or io days later. The young plants will be ready to transplant in about 25 to 30 days. During cold nights and stormy days, the beds should be closely covered with the sashes, and these further protected by straw mats or shutters. Cauliflower needs more and closer protection than Cabbage, as it is rather more tender. During mild days admit air freely, the object being to keep the plants in a dormant state, without actual freezing, so that when spring comes they are in a forward state for setting out early crops. Seeds of Cabbage, Cauliflower, Lettuce and Radish may be sown in a coldframe in the spring from the last week in February to the first week in March. The frame should stand in a warm and sheltered spot, and be kept from freezing by mats or a thick covering of straw during cold nights.

## Directions for Making a Hotbed

In the vicinity of New York, from the first to the latter part of March is quite early enough to make a hotbed. The time must vary according to the latitude. Provide a quantity of fresh horse-manure from the stables, and add to this, if they can be had, one-third to one-half of its bulk of leaves. Mix them thoroughly, tramping down the mass in successive layers, and form into a large pile, so that fermentation will proceed, even in severely cold weather. In two or three days, fermentation will be apparent by the escape of steam from the heap. Now turn again, and allow the heap to remain two or three days longer, or until the second fermentation commences. Make an excavation or pit $21 / 2$ feet deep, and of a size suited to the number of plants required. The pit will be better if built up of brick. It should be made in some dry, sheltered spot, facing the south or east, if possible. Hotbed sashes are usually $3 \times 6$ feet, and one or two sashes will give early plants enough for a small family. The frame for sashes should be 18 inches high at the back and 12 inches in front, which will give the proper slope to catch the sunlight. Cross-pieces should be placed for the sashes to slide on, to facilitate opening and shutting the frames. When everything is ready, the manure is placed in the pit and trodden down firmly in layers to the required depth, 2 to $21 / 2$ feet. Then put on the sashes, and keep the pit closed until the heat arises. At first it will probably be $100^{\circ}$ or more, which is too hot to sow the seed in; but in two or three days it will subside to $90^{\circ}$ or a little less, when the soil may be put on to the depth of 6 to 8 inches. The heat may be readily ascertained by plunging a thermometer into the manure. The soil should be of well-rotted sod (or common garden soil will do), mixed with about a third of fine old manure; and in this the seeds may be sown thinly in drills 2 to 3 inches apart, and afterward (as soon as out of the seed-leaf) either thinned out or else transplanted to another frame. Air must be given every mild day by raising the sashes at the back. Water with tepid water whenever necessary, and during cold nights and snow-storms keep covered with mats or board shutters. Tomatoes, Peppers and Eggplants should be sown in a separate frame from Cabbage, Cauliflower and Lettuce, as they require more heat. The same directions may apply to hotbeds made on the surface of the ground, except that the manure should be at least a foot wider on all sides than the frame.

## VOLUNTARY COMMENDATION

Messrs. J. M. Thorburn \& Co., New York.
New York, October 12, 1908.
Gentlemen:-As requested, I am returning the copy of my order placed with you last spring. The seeds have been most satisfactory.

Yours very truly,
(Signed) F. D. Sherman.
J. M. Thorburn \& Co., New York.

Montana, June 14, 1908.
Dear Sirs:-Please find in this the 46 cents due on my last order. The seeds-and flowers produced from them -were very fine and I am much pleased with them.

Yours respectfully,
Mrs. Robert B. Smith.
Messrs. J. M. Thorburn \& Co., New York City.
Florida, June 3, inos.
Dear Sirs:-I wish to say that my kitchen-garden has been admired by everyone seeing it. I get so much satisfaction out of sowing your seeds that I am tempted to plant an acre instead of a few rods. I think it would be profitable for you to send annual catalogues to the following:

I am, very truly,
J. A. Icenhoud.

## The Verdict

In reproducing another collection of foreign envelopes it is our desire to further emphasize the extent of nur foreign business relations

In this connection we are pleased to show by actual testimony the adaptability of many of our products to almost all soils and climatic conditions.

Under the most severe tests highly gratifying results have been obtained from the sowing of our seeds.

One of our patrons in Queensland, Australia, writes us under date of September 25; "Your seeds have given great satisfaction."

Another in Grenada, British West Indies, says, "The Carnation seed purchased of you last year gave excellent results, in fact I never saw such fine blooms raised from seeds in the tropics."

A well-known missionary in Soo Chow, China, in sending us a new order last June took occasion to refer to his success with our seeds; we give an extract of his letter as follows: "It gives me pleasure to state that the order of seeds received from you in the spring has given good satisfaction under a very severe test of soil and climate."

The Canal zone does not offer any special advantages for gardening either as to soil or climate yet we received only a few days ago a glowing tribute to the merits of our seeds from one of our clients there from whose letter we quote the following paragraph: "Your seeds have given splendid satisfaction and have proven immensely superior to any others I have tried on the Canal Zone."

In passing we cannot refrain from referring to the splendid results obtained with our seeds in the frozen North and we regret space does not permit the reproduction here of a photograph sent us recently from a market-gardener in Fairbanks, Alaska, showing in detail an up-to-date vegetable-garden sown entirely with seeds purchased of us.

We might go on in the same strain $a d$ libitum.

Our dealings with foreign countries
 have extended over a lengthened period, our connections in the Isthmus of Panama, for example, covering at least fifty years. If loyality to a business organization means anything, it surely indicates pleasant and satisfactory relations. In the case of the seedsman it means more, for it signifies confidence in his integrity and an appreciation of his work, arduous in the extreme, calling forth his best efforts and requiring at all times his constant care.

# Brief Reference to a Few Novelties and Specialties in Vegetable Seeds 

Thorburn's New Garden Pea, "Germania"<br>Dwarf. Very prolific. Immense pods. Finest quality Peas


#### Abstract

Undoubtedly the finest dwarf wrinkled Pea yet introduced. It is about as early as Nott's Excelsior, grows 16 to 20 inches high and bears in the greatest profusion immense pods nearly as big as Gradus, well filled with large peas of the best quality and of the finest flavor. Gill 20 cts ., $1 / 2 \mathrm{pt} 30 \mathrm{cts} .$, pt. 50 cts ., qt. 90 cts .


## Fordhook Bush Lima Bean

Stiffly erect Bush form of the popular "Potato" Lima. Both pods and Beans are twice the size of Dreer's Bush Lima. Of strong, erect, true bush-like growth (never prostrate or running), the bushes average 20 to 30 inches in height by 20 to 24 inches across the top. The foliage is of heavy texture and very dark green in color. The stems that produce the blossoms are thrown out from the lateral and main stalks. The


FORDHOOK BUSH LIMA BEANS pods are borne in clusters of from four to eight and resemble those of Dreer's Bush Lima; they measure from 4 to $5^{1 / 2}$ inches long, about $1 \frac{1 / 4}{4}$ inches wide, and as much as $3 / 4$ of an inch thick, and contain from three to five large beans with an average of four. Pkt. 15 cts., pt. 35 cts ., qt 60 cts ., $1 / 2 \mathrm{pk} . \$ 2$, pk. $\$ 3 \cdot 50$, bus. $\$ 12.50$.

## Upright Sweet Salad Pepper

Of recent introduction. Handsome, productive, and of finest quality. The color is bright scarlet and the flesh thick, mild and very sweet. The Peppers are as large as Ruby King and are all borne upright, clear of the ground. The flesh is so thick and the skin so tender that it may be fried like a beefsteak and so sweet that it may be eaten like an apple. Pkt. Io cts., oz. 45 cts., $1 / 4 \mathrm{lb}$. $\$ \mathrm{I} .50$, lb. $\$ 5$.

## Thorburn Long-Pod Forcer Bean

A very early, dark green, long-podded sort; very productive and the finest forcer yet introduced. Pt. 30 cts., qt. 50 cts ., $1 / 2 \mathrm{pk} . \$ 1.50, \mathrm{pk} . \$ 2.50$.

## Sweet Corn, Thorburn's Early White Perfection

A new second-early sort, producing good-sized ears 6 to 7 inches in length, of beautiful shape and almost pure white. Very small cob. It is a remarkable yielder, very sweet and a fine pure type without flint or glaze. It is undoubtedly the best second-early white Sweet Corn yet introduced. Pt. 15 cts., qt. 30 cts., $1 / 2$ pk. 85 cts., pk. $\$$ r. 50 , bus. $\$ 5$.

## "The Lincoln" Pea

A recent English introduction. Long curved deep green pods, well filled with Peas of finest flavor. Very productive, and one of the best second-early sorts yet introduced. Pt. 20 cts., qt. $35 \mathrm{cts} ., 1 / 2 \mathrm{pk} . \$ \mathrm{I} .25, \mathrm{pk}$. $\$ 2.25$, bus. $\$ 8$.

## Cos Lettuce, Golden Yellow

## (Of recent introduction)

Perfectly distinct. Produces large solid hearts, bright golden yellow leaves; crisp and tender and of excellent flavor. Stands a long time before running to seed. Pkt. 5 cts., oz. $20 \mathrm{cts}, 1 / 4 \mathrm{lb} .60 \mathrm{cts}$., $\mathrm{lb} . \$ 2$.

## Head Lettuce, "Rheingold"

Very large solid heads of pure golden yelijuw, a most desiral ${ }^{1} \mathrm{e}$ color. Stands the heat well and can be sown all through the summer. It comes next to May King in earliness. Pkt. 30 cts.

## "Maliner Kren" Horse-Radish

Quick-growing, large-rooted sort, much larger and stronger-growing than the ordinary kind, and owing to its earliness can be placed in the market much sooner than the common sort. Large cuttings. In bundles of fifty. 60 c . for $50, \$$ I per 100, $\$ 7.50$ per 1,000 .

## Livingston's New Coreless Tomato

"In shape it is almost round and bright red in color. It is immensely productive, bearing clusters of four to seven fruits 6 to 8 inches apart along the stem; fruits all of marketable size, many weighing 12 to 15 ounces. Free from green core; ripens all over at once. A splendid slicing sort." Pkt. I5 cts., oz. 60 cts., $1 / 4 \mathrm{lb}$. \$2.

## Radish, Scarlet Turnip Forcing, "Giant Butter"

This new sort has many points of excellence. It produces large radishes uniformly round and of a vivid scarlet color. It keeps crisp and tender for weeks and in spite of its large size does not become hollow and pithy. It has a very small tap root and short leaves, which makes it a valuable forcer. On account of its size (five or seven radishes to a pound generally) the seed should be sown deeper, and the plants thinned to stand further apart in the rows, than ordinary sorts. Pkt. 25 cts.

## Mohawk Wax Bean

Long, flat, straight pods on same style as the well-known green-podded sort of the same name, but with wax pods. Pkt. I5 cts., pt. 35 cts., qt. 60 c .

## Tomato, Alpha Pink

Said to be the earliest pink variety. Of superior quality for table use, of fine shape and color. Extremely vigorous grower, producing its fruit in generous clusters both early and late and ripening nearly all of them at the same time. Pkt. Io cts. oz. 40 cts ., $1 / 4 \mathrm{lb} . \$ \mathrm{I} .25$.

## Tomato, Magnitude

One of the largest sorts in existence and said to be the most prolific. The color is a deep red with no tinge of purple and the flesh is solid and of fine flavor. Said to be free from rot and to be nearly all solid meat; very few seeds. Holds up well when fully ripe and bears continuously until frost. Pkt. Ioc., oz. 35 cts., $1 / 4 \mathrm{lb}$. $\$ \mathrm{I}$.

## Tomato, Earlibell

One of the earliest and most prolific red sorts in cultivation, not excelled by any variety for smoothness or delicacy of flavor. Size from 3 to 4 inches in diameter and of very uniform shape. The vines are extremely vigorous with medium heavy foliage, setting fruits close to the stem and bearing continuously until frost. Pkt. Io cts., oz. 35 cts., $1 / 4 \mathrm{lb} . \$ \mathrm{i}$.


LIVINGSTON'S NEW CORELESS TOMATO

## Muskmelon, "The Grand"

A comparatively new salmon-fleshed variety of fine flavor. It is a vigorous grower and a large yielder. The fruit is slightly elongated, the skin light green netted and the flesh rich salmon, fine-grained, firm and sweet. Pkt. IO cts., oz. 25 cts., 1/4 lb. 75 c ., lb. $\$ 2.50$.

## Butterfly Runner Beans <br> (Phaseolus multiflorus Papilio)

A variety of the Scarlet Runner Bean not only valuable as yielding a useful dish for the table, but important and desirable for brightening the garden by its gaily hued flowers far into the autumn. This new sort is quite equal to the old kinds in regard to productiveness and quality of fruit, but it is quite distinct and far surpasses the others in the beauty of its flowers. It is chiefly distinguished by the large size of the prettily waved and many white wings and its salmon and rose standards. These two colors make a beautiful and striking contrast. The vine is extremely floriferous and its leaves a somewhat lighter green than other runners. Pkt. $15 \mathrm{cts} ., \mathrm{lb} .60 \mathrm{cts}$.

# Special Mention of a Few Novelties and Specialties in Flower Seeds 

## Asparagus plumosus intermediate

New. A cross between $A$. plumosus nanus and A. plumosus robustus. A new form with exceedingly graceful foliage; a rapid and vigorous grower. The best of all for home use or for florists. Pkt. of 25 seeds, 25 cts.

## Cosmos, Lady Lenox (hA)

## (Introduced last season)

A new orchid-flowering Cosmos having gigantic blooms of a delightful shell-pink color. Strong and vigorous grower, attaining a height of 6 to 7 feet; flowers may be cut with any length of stem up to 5 feet, and will last an unusual length of time in water. Pkt. Io cts., oz. 60 cts .

## Calliopsis radiata, "Tiger Star" $(\boldsymbol{h A})$

A rich and continuously blooming annual, with peculiarly colored dark brown and golden yellow tigered flowers, the petals of which are curiously twisted like the cactus Dahlia. Of easy culture, growing in ordinary garden soil and producing its strikingly colored flowers in great abundance throughout the summer. The plant itself grows about 8 inches high and forms round, compact bushes. Pkt. 20 cts.

cosmos, lady lenox

Calliopsis bicolor nana purpurea Stellata ( $h A$ )

This lovely dwarf Calliopsis is one of the most charming of its race. The color is a beautiful purplish brown, whilst the small twisted petals give to the flowers the shape of stars. Equally desirable for bedding or for borders. Pkt. 20 cts .

## Freesia refracta Pink

(ARMSTRONG'S PINK FREESIA)
Seed of this sterling novelty, as described on page 10 , at 25 cts . per pkt. of 24 seeds.

## Gladiolus primulinus

Seed of this beautiful yellow sort, introduced by us last season. Bulbs will be found quoted on page 10. Pkt. 25 cts.

## Dimorphotheca aurantiaca

 $(\boldsymbol{h} \boldsymbol{A})$A rare and extremely showy annual from Namaqualand, South Africa, of very easy culture. The plants, of neat branchy habit, grow about 12 to 15 inches high and are exceedingly profuse in flowering. Its Mar-guerite-like blossoms, $21 / 2$ to $23 / 4$ inches in diameter, show a unique glossy rich orangegold, with dark-colored disc surrounded by a black zone. Well adapted for groups or borders; produces its pretty flowers very early after being planted out in the open ground in sunny situations and will continue to flower during the summer. This novelty gained an award of merit at the Temple Show, London, in 1907. Pkt. 25c.


## Hibiscus, Mammoth Pink (Mallow) hP

A splendid herbaceous perennial shrub growing about 6 feet high and producing in great profusion in August or September beautiful pink flowers with darker center 6 to 8 inches in diameter. Pkt. 25 cts.

## Hibiscus, Mammoth White ( $n P$ )

A fine hardy perennial growing $3^{1 / 2}$ feet high and producing lovely flowers of the purest white with rich crimson centers. Blooms the first season from seed sown early in the open ground. Pkt. 25 cts.

## Incarvillea grandiflora ( $\boldsymbol{h P}$ )

A beautiful new sort, much larger and deeper in color than the well-known I. Delavayi. Very dwarf and compact grower. Continues blooming long after other varieties have ceased flowering. Pkt. 25 cts.

## Myosotidium nobile ( $\boldsymbol{h P}$ ) (NEW Zealand Forget-me-not)

This beautiful Forget-me-not, locally known in New Zealand as the Chatham Island Lily, is the most robust and beautiful of all the species. It throws its flower-stems 18 to 20 inches above the foliage. The heads of blooms are cymose in shape and of a deep blue color edged with white. Pkt. 25 cts.

## Myosotis, Ruth Fischer (hP)

This noveity appears likely to supersede those popular Forget-me-nots, "Love Star" and "Blue Perfection," since it happily unites the good qualities of both sorts. It is of particularly neat and compact habit and the very lovely flowers shoot up strongly over the glossy dark green foliage. Displayed in large
 corymbs, they measure about half an inch across and are therefore larger than those of any Myosotis hitherto known. The color is a pure Forget-me-not blue. It can be easily forced and is excellent for cutting and for hanging baskets. Owing to its extreme hardiness it is valuable for spring bedding in the open ground. This splendid Forget-me-not took first prizes at the shows at Mannheim, Dresden, Ghent and Berlin. Pkt. 30 cts .

## Nasturtium Lobbianum, "Queen Wilhelmina"

Rich rosy scarlet flowers extremely effective against its beautifully speckled, veined and marbled white, on green, foliage. A remarkable acquirement of the Lobbianum type. Pkt. 25 cts.

## Large-flowering Perpetual Ten Weeks Stock, "Empress Augusta Victoria" $(h A)$

The plants have a true pyramidal branching growth, attaining a height of 24 inches. The flowers are of a bright silvery delicate lilac with metallic luster, and are borne on long spikes remarkable for abundance of bloom from June until frost. Pkt. 25 cts.


## New Sweet Peas

(Introduced last season)
White Spencer. Flowers of enormous size, pure white. The standard is waved and crinkled and the wavy wings so folded that the keel is almost hidden. The standard measures from $13 / 4$ to 2 inches across. The wings are fully an inch wide. The flowers are borne three and four to the stem. The stems are extra-long and measure from 12 to 15 inches in length. Of fine substance, unsurpassed for cutting and for keeping after being cut. Oz. 15 cts., $1 / 4 \mathrm{lb}$. 30 cts ., lb. $\$ 1$

Primrose Spencer. On same style as above. The color is a pronounced primrose or creamv yellow throughout. Oz. 15 cts., 1/41b. 30 cts., lb. $\$$.

## Zinnia, Double Dark Maroon, "General Jacqueminot"

Half dwarf, foliage dark green; flowers dark maroon changing during the heat of summer to brown. $A$ splendid novelty. Pkt. 25 cts

## BULBS

New Amaryllis (only a few to offer)
Jeanne d'Arc. Strong and healthy grower, fine broad foliage, generally two spikes carrying four large blooms each. Large, well-opened, white finely striped and bordered with cherry-red. 80 cts. each.

Chatrain. Very vigorous and reliable, four to eight blooms at once, large well formed; orange-red, laced and striped with dark red. One of the best. 80 cts. each

## Gladioli

PRIMULINUS. Very rare species from Victoria Falls, South Africa; grows 3 to 4 feet tall and is very vigorous. The flowers are of good size and are a clear primrose-yellow. Blooms late in July. Genuine stock; most valuable. 60 cts . each, $\$ 6.50$ per doz.

PRIMULINUS HYBRIDS. Hybrids of the above, with many related species and choice garden varieties. Extremely vigorous and healthy growers, blooming in July and August. Grow 3 to 5 feet high, with long spikes of richly colored blooms, varying in color from clear yellow to crimson, the latter with large, soft orange or golden throats; exceedingly desirable. 30 cts. each, $\$ 3$ per doz.

## Begonia crispa (Single-Fringed Begonias)

These Begonias have beautifully shaped, gracefully frilled and crested flowers borne above the foliage on long and erect stems. A fine strain with a great future. Red, Rose, White, Yellow and Salmon. Each, 15 cts., doz. $\$ 1.50$.

## Pink Freesia (Freesia refracta rosea)

## (ARMSTRONG'S PINK FREESIA)

We expect, in the spring, a limited number of bulbs of this, one of the most valuable novelties of recent years. It differs little in growth from the well-known $F$. refracta alba, except that it throws its scapes higher above the foliage, which is finer than that of the older variety. The color is a beautiful soft pink, entirely distinct. One-year seedlings, io cts each, $\$ 1$ per doz.; two-year seedlings, 15 cts . each, $\$ 1.50$ per doz.


## Vegetable Seeds

Please notice that we pay postage or express charges on all seeds ordered by the packet, ounce and $1 / 4 \mathrm{lb}$. If larger quantities are ordered add postage or expressage at the rate of 8 c . per lb .

See inside front cover of this catalogue for COMPLETE ASSORTMENTS OF VEGETABLE SEEDS of approved and choice sorts for from $\$ 5$ to $\$ 25$.

## ARTICHOKE

## Artichaut Alcachofa Mrtidjoufe

Culture--Deep, rich, sandy loam, with plenty of well-rotted manure. Sow seeds in April or May, and when large enough transplant into rows 3 to 4 feet apart and 2 feet in the rows. They reach maturity the second year. When cold weather sets in, bank the earth to the top, first cutting off and tying up the leaves so that they will occupy less space, and in the spring fork in a dressing of manure. Artichoke may also be treated as an annual by sowing the seed in hotbeds during February and transplanting in May. The heads should be cut off and used as they get ready. If left to ripen on the plant they will exhaust it, and no more will be produced that season. Heads are unfit for culinary purposes after the flowers expand.
2 French Globe. The standard sort
 \$ 10
Flat Brittany
qt. 20 cts., bus. $\$ 4$.

## ASPARAGUS <br> Asperge Esparrago Spargel

Culture.-Sow the seeds thinly in rows I foot apart in April or May ( 4 or 5 lbs. to the acre), and keep down all weeds. To secure strong, healthy plants, thin the seedlings to 3 or 4 inches in the rows, saving only the strongest. The 1 -year-old plants should be set out in spring, in rich, sandy loam, dug 18 inches deep, into which has been worked plenty of wellrotted manure. If a stiff clay soil is all that can be had, add plenty of sand and sifted coal ashes to loosen it up, and also see that it is well underdrained. In planting for private use, set out in beds of 5 feet wide, three rows in a bed, the outer being each I foot from the edge, and allow 12 inches in the rows; set the plants from 4 to 6 inches below the surface. If set out in autumn, top-dress with 6 inches of manure. For market on a large scale, set out 4 by $11 / 2$ feet. Every fall apply a good dressing of coarse manure, after the tops have been cut, and in spring fork in. Never cut too closely. The roots need the benefit of some foliage during the year, else they will weaken and die. Slugs are easily destroyed by applying air-slaked lime.
io Colossal. The approved standard
sort. The famous Argenteuil of Pkt. Oz. 1/41b. Lb.
the French is identical with it. $\ldots$. $\$ 0$ o5 $\$ 0$ Io $\$ 020$ \$0 50
12 Palmetto. Of southern origin; a very
desirable bright green Asparagus. $0510 \quad 20 \quad 50$
14 Columbian Mammoth White. Very
large white shoots
05 10 $\quad 20 \quad 60$

## ASPARAGUS ROOTS

Plant either in fall or spring

|  | Per 50 | - | 1,000 |
| :---: | :---: | :---: | :---: |
| Colossal. 2 -year-old |  | 80 |  |
| Palmetto. 2-year-old roots | 50 | 80 |  |
| Columbian Mammoth White. A fine sort, with large white shoots. 2 -year-old roots... | 60 |  |  | shoots of Asparagus during the winter. Strong roots may be forced in hotbeds out-of-doors. They should be packed closely into the frames, and by making a new bed every five or six weeks these tiny shoots may be had all winter and are valuable served with omelets, green peas, etc.


| 10 | 35 | I | Oo | 3 |
| :--- | :--- | :--- | :--- | :--- |
| Io |  |  |  |  |

Jerusalem Artichoke. Roots. . . . . . . . . . . . . . . . . qt. 20 cts.; bus. \$4..

|  | sort. The famous Argenteuil of Pkt. the French is identical with it. . . . \$0 05 | $\begin{aligned} & \mathrm{Oz} . \\ & \$ \mathrm{o} \text { Io } \end{aligned}$ | $\begin{gathered} 1 / 4 \mathrm{lb} . \\ \$ \mathrm{o} \quad 20 \end{gathered}$ | $\begin{aligned} & \text { Lb. } \\ & \text { \$o } 50 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 12 | Palmetto. Of southern origin; a very |  |  |  |
|  | desirable bright green Asparagus. 05 | 10 | 20 |  |
|  | Columbian Mammoth White. Very |  |  |  |
|  | large white shoots . . . . . . . . . . . . . 05 | 10 | 20 | 60 |

Colossal. 2-year-old roots . . . . . . . . . . . . . . . . . . . \$0 50
Palmetto. 2-year-old roots
A fine sort
with large white shoots, 2 -year-old roots
with large white shoots. 2-year-old roots ...

## BORAGE

The young leaves of this annual, which smell somewhat like a cucumber, are used as a salad, or boiled like spinach. Should be sown at intervals, as the leaves are palatable only when young. Sow in the spring, in light soil; transplant in shallow drills, a foot apart, when of six weeks' growth Pkt. $5 \mathrm{c} ., \mathrm{oz} .10 \mathrm{c} ., 1 / 4 \mathrm{lb} .25 \mathrm{c} ., \mathrm{lb} .8 \mathrm{oc}$.

## BURNET

## Pimpernelle Petite Pimpinela Pimpernell

The leaves have a warm, piquant taste, and are useful for salads and soups. Sow early in the spring, half an inch deep, thinly in rows. Garden, pkt. 5 cts., oz. Io cts., 14 lb .25 cts., lb. 80 cts.

We pay postage or express charges on all seeds bought by the packet, ounce or one-fourth pound

## BEANS


#### Abstract

As a farinaceous food for man, the Bean is considered far superior to any other legume, and next in importance to wheat. The modern varieties leave little to be desired; the great care given to their improvement has resulted in superior sorts, greatly extending the season of use, as well as varying the flavor.

Culture - About the first of May, if the ground is perfectly warm, select a warm, dry, sheltered spot; dig and manure slightly; make drills 2 inches deep and 18 inches to 2 feet apart; drop the beans 3 inches apart in the drills, and cover not more than 2 inches deep. Hoe well in dry weather to keep down the weeds. Sow every two weeks for a succession.


## DWARF GREEN-PODDED SNAP-BEANS

We supply packets of all Beans at io cts. each, postpaid; other quantities NOT prepuid; add transporlution charges at the rate of 5 cts . per pint, 10 cts . per quart
29 Bountiful. Extra early, very prolific and long-bearing; flat, Per pt. Qt. green pods, tender and stringless $\quad$ \$o 15 \$0 30 1/2pk. Pk . Bus.
36 Dwarf Horticultural. Late and productive; flat, stringless pods..: 15
37 Dwarf Horticultural, Carmine Pods. Same as above, but with carmine pods
38 Goddard Improved. Long, flat pods; stringless; very prolific 15
39 Green-seeded Flageolet. Used as a shell-bean when green for many exquisite French dishes.
41 Hodson Green-Pod. A green-podded form of Hodson Wax.... 15
42 Longfellow. Long, straight, round, solid green pods; very early.. I5
43 Low's Champion. Large, long pods, stringless; fine flavor...... I 15
44 Marvel of Paris. Long, slender, flat pods; very early ............. 15
45 Mohawk. Long, flat straight pods; early; very productive .... 20
47 Osborn's Forcing. A most superior English dwarf Bean for forcing 30
48 Refugee, Late, or $\mathbf{1 , 0 0 0}$-to-1. Medium to late; very productive and tender; largely grown for main crop; round pod

15
49 Refugee, Thorburn Extra-Early. Has all the superior qualities of the famous Refugee, and is fully two weeks earlier in podding. 15
50 Refugee, Golden. Pods of light green color; late; very productive. I5
5 I Six Weeks, Long Yellow. Early market sort; full, flat, green pods i5
52 Six Weeks, Round. Full, green, roundish pods; early and productive
54 Stringless Green-Pod. Extra early; stringless, prolific; round pod
55 Stringless Green-Pod Giant. Improved long-podded strain of above. .................................................................
56 Thorburn Long-Pod Forcer. A very early, dark green, longpodded sort; finest of all forcing beans ........................ 30
57 Valentine, Extra Early. Round, thick, solid pods; tender; fine flavor .............................................................. I5
60 Valentine, Black. Resembling the Valentine, but with black seed; long, round, solid pods; very early

25
15
$\begin{array}{lllllll}30 & \text { I } & 00 & \text { I } & 75 & 6 & 50 \\ 30 & & 85 & \text { I } & 50 & 5 & 50\end{array}$
$\begin{array}{llllll}30 & 85 & \text { I } & 50 & 5 & 50\end{array}$
$\begin{array}{lllllll}60 & 2 & 00 & 3 & 00 & & \\ 30 & 85 & \text { I } & 50 & 5 & 50 \\ 30 & 85 & 1 & 50 & 5 & 00\end{array}$
$\begin{array}{llllll}30 & 85 & 1 & 50 & 5 & 00 \\ 30 & 85 & 1 & 50 & 5 & 50\end{array}$
$\begin{array}{lllllll}30 & \text { I } & 00 & 1 & 75 & 6 & 00 \\ 35 & 1 & 25 & 2 & 00 & 7 & 00\end{array}$
50
$\begin{array}{lllll}25 & 75 & 1 & 25 & +50\end{array}$

| 25 | 75 | 1 | 25 | 4 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 30 | 85 | 1 | 50 | 5 | oo |


| 30 | 85 | I | 50 | 5 | 00 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 25 | 75 | I | 25 | 4 | 50 |


| 30 | 85 | I | 50 | 4 | 75 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 30 | 85 | I | 50 | 5 | 50 |


| 30 | 85 | I | 50 | 5 |
| :--- | :--- | :--- | :--- | :--- |
| 50 |  |  |  |  |


| 50 | 50 | 2 | 50 |  |
| :--- | :--- | :--- | :--- | :--- |
| 25 | 75 | I | 25 | 4 |

40 I $25 \quad 2 \quad 25 \quad 8$ oo

## ENGLISH DWARF BEANS

## Feve de Marais Haba Grobe Bohnen

Culture.-Sow in drills 2 feet apart, as early in the spring as the ground can be worked (these are as hardy as Peas), in order to get them into pod before the heat of summer. When in pod, break off the top of the plant to check the growth. Plant and hoe the same as far Dwarf Beans. A strong soil suits them best.

Properly cooked, these Beans form one of the most delicious vegetables. To each $1 / 2$ gallon of water allow I heaped tablespoonful of salt. The Beans should be young and fresh gathered. After shelling, put them into boiling water, salted as above. Boil rapidly for 15 or 20 minutes, then serve with a sauce of parsley and butter. Boiled bacon is often served with the Beans.
80 Broad Windsor. The largest and best of the class
81 Early Mazagan. Earliest of the class

| Per pt. | Qt. | 1/2pk. | Pk. | Bus. |
| :---: | :---: | :---: | :---: | :---: |
| . \$0 15 | \$0 30 | \$0 85 | \$1 50 | \$500 |
| 15 | 30 | 85 | 150 | 500 |
| 15 | 30 | 85 | 150 | 500 |
| 15 | 25 | 75 | I 25 | 450 |

## DWARF WAX BEANS

We supply packets of all Beans at 10 cts. each, postpaid; other quantities NOT prepaid; add transportation charges at the rate of 5 cts . per pint, 10 cts . per quart
pods are round, full, stringless and of fine quality $\ldots \ldots \ldots . . \begin{array}{lllllllllll} & & 15 & \$ 0 & 30 & \$ 0 & 85 & \$ 1 & 50 & \$ 5 & 50\end{array}$ Black Wax, Challenge. Round pod; extra early
30

Black Wax, Cuir's Rust-Proof. Flat pods ................... 15 Black Wax, Pencil-Pod. Slender, long, round pods, productive. Black Wax, Pencil-Pod. Slender, long, round pods.............. I5
Davis Kidney Wax. Long, handsome, waxy white; flat pods.... I5
Flageolet Red Wax.
99
IOI Golden Wax Improved. Very early; flat pods, long and stringless 15
102 Golden Wax, Keeney's Rustless. Semi-round pods.

## DWARF WAX BEANS, continued

Io3 Golden-Eyed Wax. Very hardy and prolific, with flat, yellow pods; early and free from rust. Pt. I5 cts., qt. $30 c ., 1 / 2$ pk. 85 c., pk. $\$ \mathrm{I} .50$,bus. $\$ 5$.
104 Hodson Wax. Very large, brittle and tender wax pods; stringless. Enormously productive. Pt. I5c., qt. 30c., $1 / 2 \mathrm{pk}$. 85 c ., pk. $\$ \mathrm{I} .50$, bus. $\$ 5.00$.
105 Mohawk Wax. On same style as Mohawk, but with wax pods. Pt. $35 \mathrm{cts} .$, qt. 60 cts .
106 Refugee Wax, Stringless, Thorburn. A perfect Refugee, with long, round, wax pods; for early or late sowing; immense yielder. Pt. 15 cts., qt. 30c., 1/2pk. 85 cts., pk. $\$$ I.50, bus. $\$ 5.50$.
IO7 Round-Pod Kidney Wax (Brittle Wax): Same as Wardwell's Kidney, but with round pods. Pt. I5c., qt. 30 cts., 1/2pk. $\$ \mathrm{I}$, pk. $\$ \mathrm{r} .75$, bus. $\$ 6.50$.
109 Saddleback Wax. Long, nearly straight pods, well rounded; rich golden yellow; stringless; very prolific. Pt. ${ }^{15 c}$., qt. $30 \mathrm{c} ., 1 / 2 \mathrm{pk} .85 \mathrm{c}$., pk. $\$ 1.50$, bus. $\$ 5.50$.
in Wardwell's Kidney Wax. Early; long flat, purely wax pods. Pt. I5c., qt. $30 \mathrm{c} ., \mathrm{I} / 2 \mathrm{pk} .85 \mathrm{c}$., pk. $\$ \mathrm{I} .50$, bus. $\$ 5.50$.
III White Wax, Improved Stringless. Round pods; beans pure white and of finest quality; strong grower; stringless. Pt. I5 cts., qt. 30 cts., $1 / 2 \mathrm{pk}$. $\$ \mathrm{I}$, pk. $\$ \mathrm{I} .75$, bus. $\$ 6$.
II2 Yosemite Mammoth Wax. Long, thick, solid pods; finest quality. Pt. 35 cts., qt. 60 cts .

## WHITE BEANS

We supply packets of Beans at 10 cts. each, postpaid; other quantities NOT prepaid; add transportation charges at the rate of 5 cts . per pint, 10 cts. per quart.
${ }^{1} 15$ Thorburn Dwarf Lima (The true Kumerle Strain). The dwarf form of our famous Challenger Lima-the finest of all Limas. It possesses the flavor of the genuine Challenger Lima. Pt. 25 cts., qt. 45 cts., $1 / 2$ pk $\$ 1.50$., pk. $\$ 2.50$, bus. $\$ 8.50$.


EXTRA-EARLY REFUGEE BEANS
the large flat Pole Lima, growing only I 8 or 20 inches high. It is an immense yielder.
Pkt. I 5 cts. ...

122 Henderson Bush Lima, or Dwarf Sieva. Productive …...........20

125 Wood's Prolific Bush Lima. Very productive. The Early Sieva, or Butter Bean of the South
126 White Kidney. Excellent, either green or ripe, as a shell Bean ..... 15
128 White Marrow. Good, either as a string or shell Bean
130 White Flageolet. Small; white Beans, used shelled

| 35 | I | 25 | 2 | 25 | 8 | 00 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 25 |  | 75 | 1 | 25 | 4 | 25 |
| 25 |  | 75 | 1 | 25 | 4 | 25 |
| 30 |  | 85 | 1 | 50 | 5 | 00 |

## POLE, or RUNNING BEANS

We supply packets of Beans at 10 cts. each, postpaid; other quantities NOT prepaid; add transportation charges at the rate of 5 cts . per pint, Io cts. per quart
Culture - Sow as the soil becomes warm and dry, from the first part of May (for all except Limas) to the latter part of May, in hills 4 feet each way. Limas should not be planted until warm weather has fairly set in. One quart of Limas will plant about Ioo hills, allowing four or five beans to a hill, and of the smaller sorts about 200 hills. Poles 8 or to feet long should be firmly set in the hills before planting seed.

| 140 | a, Challenger. Thick and productive; best of all | Per prt. \$o 25 Qt. |  | Pk. | Bus. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 142 | Lima, Large White. Highly esteemed . . . . . . . . . | .. 2035 | 125 | 200 | 700 |
| 143 | Lima, King of the Garden. Large in pod and bean. | 2035 | I 25 | 200 | 700 |

## J. M. THORBURN \& CO., 33 BARCLAY ST., NEW YORK

## POLE, or RUNNING BEANS, continued

145 Lima, Siebert's Early. Very early; immense yiclder; large size Pt. Qt. 1/2pk. Pk. Bus. beans of the finest quality.
I46 Lima, Small Sieva, or Carolina. Early and productive So 20 \$O 35 \$I 25 \$2 OO \$7 00 $\begin{array}{llllllll}20 & 35 & 1 & 25 & 2 & 00 & 700\end{array}$
I47 Black German Wax. Yellow pods . . . . . . . . . . . . . . . . . . . . . . . . . . 2
148 Dutch Case-Knife. Pods long, green and flat; can be either snapped or shelled
$\begin{array}{lllllll}20 & 35 & 1 & 25 & 2 & 00 & 700\end{array}$

149 Horticultural Pole. Good as a snap or as a shell Bean $\ldots \ldots . . . . . . . .$.
150 Horticultural Worcester Mammoth. An improved strain of Horticultural Pole, with larger beans and longer pods .......... . 20
151 Horticultural Golden Carmine Wax-podded. Very handsome, large, stringless pods.
$\begin{array}{lllllll}50 & \text { I } & 00 & 1 & 75 & 600\end{array}$
$\begin{array}{lllllll}15 & 1 & 00 & 1 & 75 & 6 & 50\end{array}$
$\begin{array}{lllllll}35 & 1 & 25 & 2 & 00 & 7 & 50\end{array}$

I52 Golden Cluster Improved. Long golden yellow pods in clusters......................................... 20
I 54 Kentucky Wonder (Old Homestead). Pods green; very long and flat 20
I 55 Kentucky Wonder, Golden Pods.
I 56 Lazy Wife. Long green pods of good quality; white beans . . . . . . . . 20 20

I59 Scarlet Runner. A popular English Pole Bean; very ornamental . . . I 5
i60 Southern Creaseback. Long, round, stringless pods; fleshy, tender.
I6I Southern Prolific. A continuous bearer
I62 White Dutch Runner. Same habit as the Scarlet Runner. . . . . . . . 20
163 Butterfly Runner. See novelties.... Pkt. 15c., $1 / 2 \mathrm{lb} .35 \mathrm{c}$., lb .60 c
164 Yard-Long French. Pods sometimes grow from 2 to 3 feet long and are very slender; curious; should be grown on pea brush. . pkt. 25 c .


## BEET

Betterave Remolacha Galatrübe
Culture.-Sow as early in the spring as the ground can be worked ( 5 to 6 lbs . to the acre), and every two weeks after for a succession up to the first week of July. For general crop, sow about the middle of May. The soil should be light, sandy loam, well enriched with stable manure, and plowed and harrowed until very fine. Sow in drills I foot to I 5 inches apart, and when well up, thin to from 4 to 6 inches. The young Beets, with their tops, pulled out of the row are excellent used as spinach. For this purpose sow frequently and use when size of a hickory nut.
I75 Bassano. Early; light color; Pkt. Oz. 1/4 lb . Lb. good sort . . . . . . . . . . . . \$0 05 \$0 io \$0 20 \$0 60
I 86 Columbia. Round, smooth-skin; with deep blood-red flesh .... 05 IO $20 \quad 60$
I87 Crimson Globe. Fine, globular shape; flesh rich, deep crimson; tender and sweet; very early..

| 05 | 10 | 25 | 70 |
| :--- | :--- | :--- | :--- |

igo Crimson Globe, Sutton's. Good shape; finest quality .... $05 \quad 10 \quad 25 \quad 80$
192 Detroit Dark Red Turnip. Round; skin dark blood-red; flesh bright red

| 05 | 10 | 25 | 70 |
| :--- | :--- | :--- | :--- |

I94 Dewing Early. Of fine form and flavor, and good for market . . 05 IO $20 \quad 60$
196 Early Yellow Turnip. Yellow flesh, very tender and sweet... $05 \quad 10 \quad 20 \quad 60$
198 Early Blood Turnip. Dark red; fine flavor; good for winter... 05 IO $20 \quad 60$
200 Eclipse. Early; round, bright red $05 \quad$ IO $20 \quad 60$
202 Edmand Blood Turnip. A marketgardener's strain of great regu$\begin{array}{llllll}\text { larity in shape and of best quality } & 05 & \text { IO } & 20 & 60\end{array}$
204 Egyptian. Early, and of dark blood-color; rather flat in shape. $05 \quad$ IO $\quad 20 \quad 60$
206 Egyptian, Crosby's. Extra early, round, dark blood-color . . . . . . . .
$\begin{array}{llll}05 & 10 & 25 & 70\end{array}$
210 Half-Long Blood. Fine dark strain for winter . . ............. 05 IO $25 \quad 70$

222 Long Smooth Blood. A good late variety for winter................ 05 IO 20 50
223 New Model Red. Very dark; splendid sort . . . . . . . . . . . . .
urin. Red; early; flat; tender

| 05 | 10 | 25 | 80 |
| :--- | :--- | :--- | :--- |

225 Turin. Red; early; flat; tender.. o5 IO $25 \quad 80$
227 Witham Fireball. Brilliant red flesh, solid, sweet and crisp; fine quality: globe-shaped; very early
230 Swiss Chard, or Silver Beet. To be used same as spinach.................. 05 10 ince and one-fourth pound 20

## FOLIAGE BEET

These varieties are grown only for their handsome foliage, which is very ornamental and decorative.


## MANGEL-WURZEL, SUGAR BEET, ETC. ॠunfelrüben

Culture.-As all Mangels require a deed soil in order to grow well, plow and subsoil at least a foot to 18 inches, and apply plenty of rich stable or Thorburn's Complete Manure. Sow in May or June, in rows 18 inches to 2 feet apart, and thin to 8 inches in the rows. Young plants may be transplanted to fill up vacancies. Sow in addition, when the plants are 3 or 4 inches high, at the rate of 200 lbs . Complete Manure, 200 lbs . bone flour, and 400 lbs . salt per acre. As soon as frost occurs, dig the crop. In order to be well preserved for gradual consumption during the winter, Mangel-Wurzels should be heaped to a height of perhaps 6 feet. on a dry, sloping situation; cover at first with a piece of canvas, and as the cold increases this should be replaced by about 6 inches of either salt-hay, straw, sea-weed or corn-stalks, with a light layer of earth on top. As soon as this surface soil becomes frozen, about 6 or 8 inches more of earth should be placed over it. By following up this gradual process of covering, all danger of heating will be obviated, and the roots will keep in perfect order. Sow from 5 to 8 pounds to the acre.

## MANGEL-WURZEL

255 Giant Half-Sugar Red-Skinned. Longish ovoid; red skin; white flesh. Ex- Oz. ${ }^{2} 1 \mathrm{lb}$. Lb. cellent quality. io lbs. and over @ 35 cts. per lb.................................. 10 so 15 so 40
260 Giant Yellow Intermediate. Very large. Io lbs. and over @ 25 cts. per lb.; 25 lbs . and over @ zo cts. per lb.
. $10 \quad 15 \quad 30$
26 I Golden Tankard Mangel-Wurzel. Bright yellow; handsome and sweet, and very productive 10 lbs. and over @ 25 cts. per lb.; 25 lbs . and over @ 20 cts . per lb... 10 I5 30
262 : Red Globe Mangel-Wurzel. Similar to Golden Globe; productive. Io lbs. and over @ 25 cts. per lb.
265 Golden Globe. Very handsome strain. Io lbs . and over (4) 25 cts . per $\mathrm{lb} \ldots \ldots$. 10 I 15 . 30
267 Long Yellow. A good main-crop sort. Io lbs. and over @ 20 cts. per lb........ Io 15 I 25
269 Mammoth Long Red Mangel-Wurzel. Very large; enormously productive under careful culture. Io lbs. and over @ 25 cts. per lb.; 25 lbs . and over @ 20 cts . per lb. 10 I5 30
27 I Yellow Ovoid Mangel-Wurzel. Of distinct shape; one of the most productive sorts. Io lbs. and over @ 25 cts . per lb.
$10 \quad 15 \quad 30$

## SUGAR BEET

We recommend 5 to io lbs. to the acre.


## BROCCOLI

## Broccoli Broculi Spargelfobl

Culture.-Sow early sorts as soon as the ground can be worked in the spring, in shallow drills, drawn 3 or 4 inches apart. Plant out 2 feet apart each way when the plants are about 4 inches high. Cultivate the same as cabbage, in rich soil, and use the same remedies for insect attacks.

The following are sorts best adapted to this climate; they are excellent, and deserve much wider culture than is usual in this country.

| 285 | Early White |  |
| :---: | :---: | :---: |
| 286 |  |  |
| 287 | Purple Cape |  |
| 288 | Veitch's Self-protecting |  |
|  |  | BRUSSELS SPROUTS |

## Chou de Bruxelles Berza de Brusels Rojenfogl

Culture.-Sow in May, in the same manner as cauliflower, and transplant in July, I foot apart in the rows, which should be $11 / 2$ feet apart. The Brussels Sprouts is, without exception. the very best winter vegetable that can be grown. Not the least valuable point connected with it is that it is as hardy as the common Curled Greens. The real sprout is not much larger than a marble, and as firm and hard almost as the stalk itself. Strip off the outer covering, cook them whole, and serve them in that fashion. When cooked through and no more, such Sprouts melt in the mouth, like the tenderest cauliflower, and are equally good.

|  |  |  | Oz. | 1 b . | Lb. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 290 | Improved Half Dwarf. The very best and surest strain. | So 05 | So I5 | So 40 | \$I |
| 291 | Improved Dwarf German, or Long Island. Compact heads; productive | 05 | 20 | 60 |  |
| 295 | Dalkeith. Of dwarf growth, producing large, solid sprouts | 05 | 20 | 50 |  |

We pay postage or express charges on all seeds bought by the packet, ounce or one-surth. pound


THORBURN'S GILT-EDGE CAULIFLOWER

## CAULIFLOWER <br> Chou-Fleur Coliflor Blumenfogl

Culture.-The same as for cabbage, except that extra manure and plenty of water will pay upon Cauliflower If the soil be dry, water frequently, and, if the plants could have a heavy mulch of hay or straw, it would keep the soil moist, and they would not suffer from drought. The early kinds should be strong enough to plant out not later than the middle of April; the late kinds may be planted out same time as cabbage.
315 Thorburn Extra-Early Dwarf Erfurt. The very best and earliest for forcing under glass; very dwarf and compact, with short stem and small $\begin{array}{lllll}\text { leaves. It should not be confounded with entirely different sorts } \mathrm{Pkt} & \mathrm{Oz} . & 1 / 1 \mathrm{lb} . & \mathrm{Lb} \text {. }\end{array}$

317 Large Early Erfurt (Thorburn's selection). Justly popular with marketgardeners for late crop.
$25 \quad 25 \$ 8$ oo $\$ 3000$
Thorburn Gilt-Edge. Large, heavy sort, maturing immediately after our Large Snowball. It is, without an exception, the best and surest of all. . $25 \quad 2 \begin{array}{lllllllll}25 & 7 & 50 & 28 & 00\end{array}$
321 Thorburn Extra-Early Snowball. Our strain of this popular variety is
unequaled. It is one of the best for forcing under glass or for open ground $\begin{array}{llllllll}25 & 2 & 25 & 7 & 50 & 28 & 00\end{array}$
322 Thorburn Large Early Snowball. A large strain of the above......... 2
323 Denmark. On the style of Large Erfurt; very fine.......................... 10
324 Extra-Early Paris. Heads of medium size; first-class..................... 10
325 Lenormand Short-Stem. Has very large heads; white and firm....... io
326 Large Algiers. Market-gardener's popular late sort for the South.
10
327 Early London. Large and hardy . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 05
329 Thorburn Nonpareil. A first-class standard sort. . . . . . . . . . . . . . . . . . . . . 10
330 Autumn Giant. Vigorous in growth, and very large; late
10
05


EARLY JERSEY WAKEFIELD CABBAGE

## CABBAGE

CHOU
Berza de repollo
תohl
Culture.-Soil for Cabbage should be rich and heavy loam, with good drainage. On such a soil, with an abundance of stable or Thorburn's Complete Manure, excellent crops are sure to be grown. For early spring, sow in fall not too early, or the plants are liable to bolt in the spring, instead of heading. In a month the plants will be fit to transplant to coldframes, where they are wintered, taking care, in planting, to set the young plants down to the first leaves. Transplant in spring as soon as the ground can be worked, setting the plants 2 feet apart one way and from 12 to 18 inches the other, according to the variety. If it is desirable to economize space: lettuce or radish may be sown between the rows, as they will be out of the way before the Cabbage needs the room. For late or winter crops, the seed is sown in May, and the plants set out in July. In this case they are set in rows 2 by 3 feet, so as to work them with a horse and cultivator. To destroy the green worm, an experienced grower says: "Take one ounce of saltpeter and dissolve it in 12 quarts of water; then take a short-handled whisk-broom, dip it in the solution and sprinkle the plants well. One application is sufficient, unless the stuff is washed off by heavy rains. The liquid, being perfectly clear, never colors the cauliflower or Cabbage heads." To prevent the turnip flea attacking the young plants, sift fine air-slaked lime or tobacco dust over them as soon as they appear above ground.
Per pkt. Oz. 1/41b. Lb.

All Seasons. One of the finest second-early or late sorts, growing to a large size quickly and surely ................................................... . . . 05
Baseball, Early. The finest early all-head Cabbage. . . . . . . . . . . . . . . . . . . Io
355 Early Spring. Flat, extra-early, medium size 10
05
356 Early York. The standard English sort . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 05
357 Large Early York. Larger than the above05

358 Express. Extra-early; small, solid heads of fine quality $\ldots \ldots \ldots . . . . .$. . . . . 05
359 Etampes. A fine, extra-early, small French sort, with pointed heads ...... o5
360 Extra-Early Jersey Wakefield. Somewhat earlier than No. 361. $\begin{array}{r}05 \\ 05 \\ \hline\end{array}$
361 Early Jersey Wakefield. The most popular early variety; heads very solid, pyramidal shape, with little outside foliage.

Filderkraut, or Pomeranian. Pointed head.
Improved Early Summer. A superior second-early sort; produces large05

| 20 | 60 | 2 | 00 |
| :--- | :--- | :--- | :--- |
| 30 | 85 | 3 | 00 |
| 20 | 60 | 2 | 00 |
| 15 | 35 | 1 | 00 |
| 15 | 35 | 1 | 00 |
| 20 | 50 | 1 | 50 |
| 20 | 50 | 1 | 50 |
| 25 | 75 | 2 | 50 |
|  |  |  |  |
| 25 | 75 | 2 | 50 |
| 25 | 75 | 2 | 50 |
| 15 | 40 | 1 | 25 |
| 30 | 85 | 3 | 00 |
| 20 | 60 | 2 | 00 |
| 20 | 55 | 1 | 75 |
|  |  |  |  |
| 20 | 60 | 2 | 00 |
|  |  |  |  |
| 20 | 60 | 2 | 00 |
| 25 | 75 | 2 | 50 |
| 20 | 60 | 2 | 00 |
| 20 | 60 | 2 | 00 | Good for both intermediate and winter use.

Succession Improved. Excellent second-early sort: large, solid heads.... 05
377 Large Late Drumhead. A standard winter Cabbage for main crop . . . . . .
Large Late Flat Dutch. A valuable sort for market . . . . . . . . . . . . . . . . . 05
0520
200

## CABBAGE, continued



## CARDOON

## Cardoon Cardo Earbon

Culture.-Sow early in spring, in rows where the plants are to stand, and thin the n to 2 feet apart When full size, bind them together with bast or raffia, and earth up like celery to blanch. The stems of the leaves are used for salads, soups and stews. The stems should be wintered in a cellar away from frost
420 Large Solid. Smooth; grows about 4 feat high; leaves nearly free fromPer pkt. Oz. $1 / 4 \mathrm{lb} \quad \mathrm{Lb}$. spines

05 \$o 25 \$o 65 \$2 25
421 Large Solid Tours (Prickly)

## CARROT

## Carotte Zanahoria

Culture.-Sow No. 450 as early as the ground can be worked; or, for late crop, until the latter part of July or early in August for a winter crop. This is the finest and most tender for table use. For main crop, sow from middle of May to the first of July. Thin out early crop to 5 inches in the row, main crop, 6 to 7 inches; the rows io inches apart for early crop, 14 for main crop. Hoe often and deeply between the rows. Soil light, and loamy, richly manured and deeply dug. Sow at the rate of 2 to 3 lbs . to the acre. Carrot tops cut from fairly young plants may be used for pretty indoor greenery. Put one cutting into each thumb-pot or 3 or 4 into a larger pot around the sides. Fairly good and sandy soil should be used, syringing frequently until growth is well forward. About I inch of Carrot should be left to put in soil, but this should be surrounded with soil or moss to hide it. When fully grown it is very pretty, the long fronds hanging over gracefully.
450 Early Round Parisian. Small and very tender; for frames or open ground. Pkt. 5c., oz. $15 \mathrm{cts} ., 1 / 4 / \mathrm{lb}$. 35 cts., lb. \$1.
456 Oxheart Half-Short (Guerande). Very thick and short. Pkt. 5 cts., oz. 10 cts., 1/4lb. 25 cts., lb. 80 cts.
457 Scarlet Horn, Early. Very thick roots; fine for frames. Pkt. 5 cts., oz. I 5 cts., $1 / 4 \mathrm{lb} .35$ cts., lb. $\$ \mathrm{I}$.
458 Half-Long Pointed. A well-known strain; productive. Pkt. 5 cts., oz. 10 cts., $1 / 4 \mathrm{lb} .25$ cts., lb. 75 cts.
Half-Long Stump-rooted. An excellent sort, of good quality. Pkt. 5c., oz. Ioc., 1/4lb. 25c., lb. 75 cts.
460 Half-Long Stump-rooted, Nantes Strain. Very popular. Pkt. 5 cts , oz. IO cts., 1/4 lb. 25 cts .1 lb .75 c .
462 Chatenay Half-Long Stump-rooted. Style of Nantes, broader shoulder. Pkt. 5 cts., oz. IO cts., $1 / 41 \mathrm{lb}$. 25 cts., lb. 75 cts.
465 Luc Half-Long Stump-rooted. Is a useful maincrop sort. Pkt. 5 cts., oz. Io cts., 1/4 1 lb .25 cts., lb 80 c .
+66 Danvers Half-Long. Large; of good quality; productive. Pkt. 5 cts., oz. Io cts., $1 / 4 \mathrm{lb} .25 \mathrm{cts}$., 1 lb .75 c .
468 St. Valery. A thick, intermediate long red. Pkt. 5c., oz. $10 \mathrm{cts} ., 1 / 4 \mathrm{lb} .20 \mathrm{cts} ., \mathrm{lb} .60 \mathrm{cts}$.
470 Long Orange. Best for stock-feeding. Pkt. 5 cts., oz. 10 cts., $1 / 4 \mathrm{lb} .20 \mathrm{cts} ., 1 \mathrm{lb} .60 \mathrm{cts}$.
471 White Vosges. Large, thick, short; fine for stock. Pkt. 5 cts., oz. 10 cts., $1 / 4 \mathrm{lb} .20 \mathrm{cts} ., \mathrm{lb} .50 \mathrm{cts}$.
472 Long White Belgian. Very large; for stock. Pkt. 5c., oz. IO cts., $1 / 4 \mathrm{lb} .20 \mathrm{cts} ., \mathrm{lb} .50 \mathrm{cts}$.


We pay postage or express charges on all seeds bought by the packet, ounce or quarter pound


GOLDEN SELF-BLANCHING CELERY

## CELERY

## Celeri Apios Sellerie

Culture.-Sow the seed in a light, rich, dry border as early as the ground can be worked, in drills 8 or Io inches apart, and cover the seeds about a quarter of an inch deep, rolling or treading them in if the ground be dry. When fairly out of the seed-leaf, they may be transplanted to another bed, or they may be thinned out to 6 or 8 inches apart, and let grow until wanted to plant out in beds or trenches. The beds should be kept well weeded, and an occasional soaking with water in dry weather will do the plants good. Early in July at the North, a month or six weeks later in the southern states, is the proper time to set the plants out in beds or trenches Press the soil firmly against the roots. In the garden the better way is to set the plants in shallow trenches. We say shallow, for it is obviously a bad plan to remove all the good soil (as must be done in a deep trench) and put the plants in that which is poor. The plants must be set in a single row in a narrow trench; or the trench may be made into a bed wide enough to hold two, three or four rows, and in this case the plants are in a compact form to be covered for the winter where they grow. This will save much labor where there is no root-cellar for storage, as often happens to be the case. When grown in beds in this way, the rows should be I foot apart, and the plants about 8 inches apart in the rows. The bed should be made very rich with thoroughly decomposed manure. The plants will need to be earthed up two or three times, and, in doing this, care should be taken not to let the earth get into the heart of the plant. In field culture, the plants are set on the surface in rows 4 feet apart when the Celery is to be earthed up in the field for early use, and 2 feet apart when the plants are to be taken up and blanched in the cellar for winter use. The plants are set 6 inches apart in rows. If not grown in beds, the best way to store is to dig trenches in a well-drained spot in the open ground, I foot wide, and at a depth of a few inches less than the height of the Celery. The plants are then lifted and set close together. When severe cold weather comes on, cover gradually with leaves, hay or straw, and place boards on top. The turnip-rooted or "Knob" Celery needs no earthing up, and may be planted in rows I foot apart.


Improved White Plume. Naturally white or light foliage; requires but little banking up to blanch; very early and extensively grown for market

Rose-ribbed Golden Self-blanching. Very handsome rose-striped ribs.
05
10
Golden Self-blanching, French-Grown

528
Perfection Heartwell. One of the finest and largest of winter varieties, either for family or market-garden. The heart is golden yellow
Thorburn's Schumacher. Solid and crisp; firm golden yellow heart
05
53 I
Perle le Grand. A highly recommended variety. Full golden heart, rich flavor, and an excellent keeper
533 Giant Pascal. An easily branched and fine-keeping large late sort
537 Evans' Triumph. Fine, large, solid green variety.
05
05
05
538 Giant Golden Heart. Very large, solid and fine-flavored; of vigorous growth o
539 Crawford Half-Dwarf, or Golden Heart. Of vigorous growth, fine flavor. . 05
540 Winter Queen. Very large, solid green winter sort; blanches well
542 New Rose. Fine flavor; handsome.
05
05
05

| 25 |  | 65 | 2 | 25 |
| :--- | :--- | :--- | :--- | :--- |
| 35 | 1 | 00 | 3 | 50 |
| 40 | 1 | 25 | 4 | 00 |
| 25 |  | 75 | 2 | 50 |
|  |  |  |  |  |
| 20 |  | 60 | 2 | 00 |
| 20 |  | 60 | 2 | 00 |

546 Pink Plume. Same as White Plume, except that the stalks are tinged with pink. Very attractive appearance, rich flavor and long keeping.

| 20 | 60 | 2 | 00 |
| :--- | :--- | :--- | :--- |
| 20 | 50 | 1 | 50 |
| 20 | 50 | 1 | 50 |
| 20 | 50 | 1 | 50 |
| 20 | 50 | 1 | 50 |
| 20 | 60 | 2 | 00 |
| 20 | 50 | 1 | 50 |
|  |  |  |  |
| 25 | 75 | 2 | 50 |
| 20 | 50 | 1 | 50 |
| 20 | 60 | 2 | 00 |
| 20 | 60 | 2 | 00 |
|  |  |  |  |
| 20 | 60 | 2 | 00 |
| 20 | 60 | 2 | 00 |

548 Boston Market. A short white variety
549 Sutton's A1 Red. Fine dwarf sort.
55 I CELERIAC, or Turnip-rooted Celery, Erfurt. For soups and stews. .... 05 05

05
05 and stews; when cooked and sliced, make fine winter salad

05 Celeriac may be stored like beets and will keep all winter.

## J. M. THORBURN \& CO., 33 BARCLAY ST., NEW YORK



THORBURN'S EARLY WHITE PERFECTION SWEET CORN

## CORN, SWEET or SUGAR

## We supply packets of Corn at 10 cts. each postpaid; other quantities NOT prepaid add transportation charges at the rate of 5 cts . per pint, Io cts. per quart

Culture - Plant in hills 3 feet apart each way, and five or six kernels in a hill. Hoe often and draw soil up to the stem; break off side shoots. Make the ground rich with well-rotted manure. If sown thinly in drills, a greater yield from a given surface will be obtained.

Most Corns can be furnished on ears, price 5 cts . each, transportation extra

## EXTRA-EARLY

580 Early Cory. A very early variety, with good-sized ears..
581 White Cory. Resembles the ordinary Cory, but with white cob
582 Mammoth White Cory. Ears double the size of the old Cory.
583 Metropolitan. Large, handsome ears of fine quality; very early
584 Golden Bantam. Extra-early; yellow; very sweet and tender
585 Premo. Extra-early; very large ears, fine quality.
586 Peep-O'-Day. One of the earliest; very sweet and of delicate flavor.
587 Minnesota. Nearly as early as Marblehead; white cob
588 Perry Hybrid. Very early and of large size; valuable for market
589 Melrose. As early as Perry Hybrid, and much larger; valuable.

| Per | Per | Per | Per | Per |
| :---: | :---: | :---: | :---: | :---: |
| \$o 15 | \$0 ${ }^{\text {qt. }} 25$ | \$0 75 | \$1 ${ }_{\text {Pr }}^{\text {pre }}$ 25 | \$4 ${ }_{\text {bus. }}$ |
| 15 | 25 | 75 | 125 | 4 |
| 15 | 25 | 75 | 125 | 450 |
| 15 | 25 | 75 | 125 | 450 |
| 15 | 30 | $1{ }^{0}$ | 175 | 600 |
| 15 | 25 | 75 | 125 | 50 |
| 15 | 25 | 75 | 125 | 50 |
|  | 25 | 75 | 125 |  |
| 15 | 25 | 75 | 125 | оо |
| 15 | 25 | 75 | 125 |  |
| 15 | 25 | 75 | 125 |  |
| rt 15 | 25 | 75 | 125 |  |
| 15 | 20 | 60 |  |  |

## SECOND-EARLY, or INTERMEDIATE

## 593 THORBURN'S EARLY WHITE PERFECTION. See novelties

Kendel's Giant. Very eary for so large-ared a sort, fine quali. 15
591 Long Island Beauty. Very early; large size; a valuable market sor 15

595 Early Champion. Very large ears, considering its earliness.
596 Shaker. Very large white grain, quite early.
598 Early Mammoth. Very large ears, fine quality; not very late
599 Crosby. Matures after Minnesota; fair-sized ears of good quality
600 Potter Excelsior. Good size, and a week earlier than Large Excelsior.

601 Moore Concord. Of strong growth; ears large and well filled.
602 Early Evergreen. A week earlier than Stowell Evergreen. . 15 15 15 15 15

603 Early Adams. Not a sugar Corn, but grown extensively for market 15

## GENERAL CROP

608 Hickox Improved. Handsome ears, very white and of rich flavor
610 Large Eight-rowed. Very productive and of superior richness.
612 Stowell Evergreen. One of the most popular varieties.
6 I4 Triumph. Large ears, very white; productive.
615 White Evergreen. A strain of Evergreen with pure white grain.

## LATE SWEET CORN

620 Black Mexican. Very sweet and of superior flavor; grains black.... 15
622 Ne Plus Ultra. Small, but one of the sweetest sorts; first introduced by us in 1888 .
623 Henderson's Sugar. Large thick ears, well filled with deep kernels, tender and sweet
624 Late Mammoth. Rank in growtr, large ears rich and sweet.
15
625 Egyptian. Large and of superior quality; largely used for canning. 15
626 Country Gentleman. A large selection of the Ne Plus Ultra, introduced by us in 1888
628 Tuscarora. Flour Corn

| 30 | 85 | 1 | 50 | 5 | 00 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 25 | 75 | 1 | 25 | 4 | 50 |
| 25 | 75 | 1 | 25 | 4 | 00 |
| 25 | 75 | 1 | 25 | 4 | 50 |
| 25 | 75 | 1 | 25 | 4 | 00 |
| 25 | 75 | 1 | 25 | 4 | 00 |
| 25 | 75 | 1 | 25 | 4 | 50 |
| 25 | 75 | 1 | 25 | 4 | 50 |
| 20 | 60 | 1 | 00 | 3 | 25 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| 25 | 75 | 1 | 25 | 4 | 00 |
| 25 | 75 | 1 | 25 | 4 | 00 |
| 25 | 75 | 1 | 25 | 4 | 00 |
| 25 | 75 | 1 | 25 | 4 | 50 |
| 25 | 75 | 1 | 25 | 4 | 50 |
|  |  |  |  |  |  |
| 25 | 75 | 1 | 25 | 4 | 50 |
|  |  |  |  |  |  |
| 30 | 85 | 1 | 50 | 5 | 00 |
|  |  |  |  |  |  |
| 25 | 75 | 1 | 25 | 4 | 50 |
| 25 | 75 | 1 | 25 | 4 | 50 |
| 25 | 75 | 1 | 25 | + | 00 |
| 30 | 85 | 1 | 50 | 5 | 00 |
| 25 | 75 | 1 | 25 | 4 | 00 |

## CHERVIL

## Cerfeull Perifollo Bensenlaud

Culture.-Cultivate and use the curled variety of Chervil like parsley. Sow at any time in the spring in shallow drills, 1 foot apart, in well-prepared ground. The seed of the Tuberous Chervil should be sown in September, and it will appear the following spring.

Per pkt. Oz . $1 / 4 \mathrm{lb}$. Lb.
630 Curled. Leaves used for flavoring soups and stews, and for garnishing.... \$0 05 \$0 io $\$ 0 \quad 25$ \$0 80

632 Tuberous. A variety which has edible roots................................. o5 20 有 50 I 50

## CHICORY

634 Common, or Wild. Used in Barbe de Capucin, a salad much made in France. Sown in June, the roots are transplanted in autumn into sand in a cellar. The young shoots form the Barbe de Capucin................... o5 10 Io 30 90 635 Witloof. Known in restaurants as French Endive. Sown in May and June in drills. Transplant or thin to 6 inches; treat as Endive, except that late in summer or fall it should be gradually banked up like celery. The stalks when blanched make a delicious salad. It is used by the French as a boiled vegetable.................................................. . 0
$05 \cdot 15 \quad 40 \quad 1 \quad 25$

636 Large-rooted Magdeburg. Roots are the Chicory of commerce. .......... o5 10 10 2580

## See also Endive, the Chicory of the French, Page 23

## COLLARDS

Culture.-Sow seed as for cabbage, in June, July and August for succession. Transplant when a month old in rows a foot apart each way and hoe of ten.

Georgia. Pkt. 5 cts., oz. Io cts., 1/4 lb. 25 cts., lb. 75 cts.

## CORN SALAD, or FETTICUS

Mache Macha o Valerianilla Stedjăalat


## CRESS

## Cresson Berro o Mastuerzo תreffe

Culture.-Sow Nos. 645 and 646 thickly in shallow drills, every two or three weeks. No. 645 should be cut often and it will continue to grow. It is useful not only for salad, but for the breakfast table and for garnishing. Nos. 648 and 649 should be sown in damp soil; or if a stream of water can be utilized, they would be much finer. They will also thrive well in damp hotbeds. Rightly managed, their culture is very profitable. To obtain early salad it is a good plan to sow with Water Cress seed a strip 4 inches wide on the outer margin of a hotbed, inside the frame, where it is always cool.

|  | , | Per pkt. | Oz. | $1 / 41 \mathrm{~b}$. | 1/2lb. | Lb |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 645 | Curled, or Pepper Grass | . \$0 05 |  | \$0 15 | \$0 25 | \$0 40 |
| 646 | Plain-leaved | 05 | 10 | 15 | 20 | 35 |
| 647 | Broad-leaved Winter, or Upland. Gray seed | 05 | 10 | 25 | 40 | 75 |
| 648 | Erfurt True Sweet Water Cress. Very mild and tender | 10 | 30 | 100 | 75 |  |
| 649 | True Water Cress. | 10 | 30 | 100 | 75 |  |

## DANDELION

## Pissenlit Amargon æardeblum

CUlture - Dandelion is a hardy perennial, and one of the most desirable early spring salads. Sow in early spring in drills $1 / 2$ inch deep and 18 inches apart; thin out the plants to 12 inches. Keep clear of weeds during the summer and the ensuing spring the leaves will be fit to cut. They are best, however, when blanched, which makes them tender and destroys, to some extent, their bitter taste without impairing the qualities which make them desirable as greens. The blanching may be done by placing a couple of boards over the rows thus: $\wedge$. This excludes the light and improves the greens, rendering them far superior to those found growing wild.

Per pkt. Oz. 1/4lb. Lb.
French Garden
. \$0 15 \$0 50 \$I 75 \$6 00
We pay postage or express charges on all seeds bought by the packet, ounce or quarter pòund


# CUCUMBER <br> CONCOMBRE <br> Pepino Gurfe 

Culture-For very early, sow in hotbeds upon pieces of sod, or in small pots, and they can be readily transplanted with a gain of about six weeks before they can be sown in the open ground. Plant out in rich soil when danger of frost is over, or protect by hand glasses, of by paper held down at the corners with a handful of earth. For general crops, sow in the open ground as soon as the weather is settled and warm, and every two weeks for a succession. For pickles sow from middle of June to first week in July. Sod land, turned over in the fall. is the best for them. Plant in hills 4 feet apart, putting a shovelful of well-rotted manure in each hill.
664 Cumberland. One of the best pickling sorts yet introduced, being very Per pkt. Oz. 1/41b.
Lb. handsome and productive, with flesh firm but very crisp and tender. \$o o5 \$o io \$o 30 \$1 oo $664 a$ Cyclone. Extra-early; very productive, of excellent quality
665 Early Green Cluster. Fruit small and in clusters; very prolific
666 Early Russian. Very early; short; fine for pickles.
667 Giant Pera. Very long; one of the best for table use 05

668 Fordhook Pickling. Very prolific; medium size; fine pickling strain

| 05 | 10 | 30 | 1 | 00 |
| :--- | :--- | :--- | :--- | :--- |

669 Thorburn Everbearing. Small-sized; very early and enormously productive, and valuable as a green pickler.

| 05 | 15 | 35 | 1 | 25 |
| :--- | :--- | :--- | :--- | :--- |

Cool and Crisp. Extra-early and very prolific; long, straight, slender and
$670 \begin{gathered}\text { Cool and Crisp. Extra-early and very prolific; long, straight, slender and } \\ \text { very dark green; good either for pickling or slicing........................ }{ }_{5}\end{gathered}$
10 30 I оо
${ }_{671}^{671}$ Early Short Green. Good for pickling; productive. ............................. productive. Does not turn yellow.
672 Parisian Pickling. A perfect pickling sort
05
673 New Orleans Market. For forcing or open ground; very productive...... o5
674 White Spine Improved. A very handsome and uniform early variety . . . . 05
675 " " Arlington. Fine either for forcing or for outdoors........ o
675a " " Noroton Selected. Perfect in shape and more prolific than Improved White Spine or Arlington. (See cut above.)...... 05
" Extra-long. A beautiful, large and well-shaped Cucumber. . o5
${ }_{677}^{676}$ Evergreen. Very early and prolific; deep green color.
677 Evergreen. Lery early and prolific; deep green colar....
05
679 Long Green Turkey. Fruit very long and rather slim..................... $0_{5}$
680 Green Prolific Pickling. One of the best for pickling; dark green.......... 05
681 Nichol Medium Green. Most symmetrical, and a very fine table sort.... . 05
683 Tailby Hybrid. Very long, and superior for table use.................... 05
684 Japan Climbing. Good for frames or open ground......................... $0_{5}$
685 Small Gherkin. Very small bur; used for pickles........................... 10
$685 a$ Lemon Cucumber, or Garden L non. Almost round; yellow and green markings; tender and of sweet flavor. Resembles a lemon in appearance 05
$20 \quad 50 \quad 150$

| 20 | 55 | 1 | 75 |
| :--- | :--- | :--- | :--- |
| 20 | 50 | 1 | 50 |


| 15 | 35 | 1 | 50 |
| :--- | :--- | :--- | :--- |
| 15 | 35 | 1 | 25 |


| 15 | 35 | 1 | 25 |
| :--- | :--- | :--- | :--- |


| 20 | 50 | 1 | 50 |
| :--- | :--- | :--- | :--- |
| 20 | 50 | 1 | 50 |
| 10 | 30 | 1 | 00 |
| 20 | 50 | 1 | 50 |
| 15 | 35 | 1 | 25 |
| 20 | 50 | 1 | 50 |
| 15 | 35 | 1 | 25 |
| 15 | 35 | 1 | 25 |
| 15 | 35 | 1 | 25 |
| 25 | 75 | 2 | 50 |
| 20 | 60 |  |  |
| 20 |  |  |  |

## ENGLISH CUCUMBERS FOR FRAMES

## (Concombre especes Anglaises pour Couches)

CUlTURE.-The following are for growing in hotbeds, or forcing houses so that a supply can be furnished during the winter months, at which time the prices are very remunerative. Sow seeds in Oct., Nov. or -Dec., according to the time they are wanted, in small pots, in fibrous loam lightened and enriched with old manure; give plenty of air and water. Robustness of habit is especially valuable in winter, and therefore the soil must not be too light. Plunge the pots in a frame near the glass, where there is a little bottom heat, and keep them covered with brown paper until the seeds germinate. Afterwards uncover and ventilate, to insure sturdiness of habit. More seeds should be planted than plants required, as some may fail to grow, and others may be weaklings. Only strong plants should be employed It is necessary to fertilize the pistillate flowers with the staminate, to render the vines productive, as, owing to the absence of insects, they will not produce a crop under glass as in the open ground

We pay postage or express charges on all seeds bought by the packet, ounce or quarter pound

## ENGLISH CUCUMBERS FOR FRAMES, continued

| 686 | Duke of Connaught. Fine form and | . per pkt. of 20 seeds. . . \$0 25 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 687 | Duke of Edinburgh. Very large and long; |  |  | 14 |  | 25 |
| 688 | Giant of Arnstadt. Good bearer |  |  | 40 |  | 25 |
| 689 | Lockie's Perfection. Fine color |  |  | 14 |  | 25 |
| 690 | Noa's Forcing. Very productive |  |  | 20 |  | 25 |
| 691 | Prescott Wonder. Long, dark green fruit |  |  | 16 |  | 25 |
| 692 | Telegraph. Free-bearing; handsome |  |  | 20 |  | 25 |
| 693 | Tender and True. Fine form; good color |  |  | 16 |  | 25 |
| 694 | Veitch's Sensation. Splendid sort . . |  |  | 20 |  | 25 |

## ENDIVE or CHICORY

Chicoree Escarola o\&Endivia Endibie

Culture.- Sow in June, July and August; cover lightly; when up, thin out to 8 inches apart, and water well afterward, if dry. When the leaves are 6 or 8 inches long, blanch by gathering in the hand and tying together near the top with yarn or bast. This must be done when quite dry, or they will rot. At the approach of winter, take up carefully, with a ball of earth to each plant, and place close together in frame or cellar for use. They must be kept dry and have plenty of air. $\quad$ Per pkt. Oz. $\quad 1 / 4 \mathrm{lb} \quad$ Lb

 704 Broad-leaved (Escarolle). A sweet variety; fall and winter. See also Witloof, page 21

## EGGPLANT

Aubergine Berengena Eierpflanze

Culture.- Sow in hotbeds very early in spring and transplant when 2 inches high into a second bed or into small pots. If this is not done, thin to 4 inches apart. Do not plant out until weather is perfectly settled and warm. Cool nights or wet weather will check them. Keep some back in frames for a second planting, in case of weather changing unexpectedly. Set out plants 3 feet by 2 .
740 Improved New York Spineless. The standard; largest and best; large, oval, deep purple; early and productive. Pkt. Io cts., oz. 40 cts., 1/4 lb . \$I.25, lb. \$4.
74 I Black Beauty. As large as the New York Improved but about ten days earlier. Very rich purplish black. Pkt. Io cts., oz. 50 cts., $1 / 4 \mathrm{lb} . \$ \mathrm{I} .5 \mathrm{O}, 1 \mathrm{lb} . \$ 5$.
742 Early Dwarf Purple. Dwarf, very early; small, ovoid fruit. Pkt. 5c., oz. $30 \mathrm{c} ., 1 / 4 \mathrm{lb} .85 \mathrm{c}$., lb. $\$ 2$.
$742 a$ Jersey Belle. Fruits dark purple, bell-shaped and of excellent quality. Pkt. Io cts., oz. 40 cts., $1 / 4 \mathrm{lb}$. \$i.25, lb. \$4.
743 Long Purple. Of distinct shape and fine quality. Pkt. 5 cts., oz. 30 cts., $1 / 4 \mathrm{lb} .85 \mathrm{cts} ., \mathrm{lb} . \$ 3$.
744 Round Purple. Of good quality; fine color and shape. Pkt. 5 cts., oz. 30 cts., 1/4lb. 85 cts., lb. $\$ 3$.
745 Black Pekin. Round, blackish purple fruit; has dark foliage. Pkt. io cts., oz. $35 \mathrm{cts} ., 1 / 4 \mathrm{lb} . \$ \mathrm{I}$, lb. \$3.50.
746 Scarlet Chinese. Small and ornamental. Pkt. 5 cts., oz. 30 cts., $1 / 4 \mathrm{lb} .85$ cts., lb. $\$ 3$.
747 Round White. Small and ornamental. Pkt. 5 cts., oz. 30 cts., $1 / 4 \mathrm{lb} .85$ cts., lb. $\$ 3$.
748 Long White. Small and ornamental. Pkt. 5 cts., oz. $30 \mathrm{cts} ., 1 / 4 \mathrm{lb} .85 \mathrm{cts} ., \mathrm{lb} . \$ 3$.
749 Striped. Purple and white. Pkt. 5 cts., oz. 30 cts., $1 / 4 \mathrm{lb} .85$ cts., lb. $\$ 3$.


NEW YORK IMPROVED PURPLE EGGPLANT

## FENNEL, FLORENCE or NAPLES

## Fenouil de Florence Finocchio di Napoli

Culture.-Sow in spring, in rows 16 to 20 inches apart. Thin out so as to have the seedlings 5 or 6 inches apart and water as plentifully as possible. The plant is usually eaten boiled. In flavor it resembles celery, but has a sweet taste and a more delicate odor. Pkt. 5 cts., oz. 15 cts ., $1 / 4 \mathrm{lb} .35 \mathrm{cts} ., \mathrm{lb} . \$ \mathrm{I}$.

## ICE-PLANT

Culture.-Sow in good garden soil as soon as the ground becomes warm in spring, in shallow drille i foot apart. Thrives well in hot, dry climates. Pkt. 5 cts., oz 50 cts .

> We pay postage or express charges on all seeds bought by the packet, ounce or quarter pound

## KALE or BORECOLE

Сhou vert Frise Col תrau̧fogl

CUlTURE.-Nos. 760 to 763 are cultivated and grown exactly like cabbage. No. 760 sown in August and September for early greens. Sow 778 early in the spring in a hotbed, and when from 1 to 2 inches high transplant into a bed or border that has been highly manured and deeply dug. Sea Kale is not fit to eat until it has been blanched, either under large pots, or by banking up with sand.
760 Curled Dwarf Green Scotch. Very dwarf and spreading; best strain; largely grown in the South, being sown in August and Sep-Pkt. Oz. $1 / \mathrm{llb}$. Lb. tember.
\$o o5 \$0 io \$o 25 \$0 70
761 ". Emerald Isle. Beautifully curled leaves of the richest possible

762 " Tall Green Scotch. A taller growth of No. $760 \ldots \ldots .$. ........... 0
763 " ${ }_{766}$ Dwarf Brown. Very hardy .......................................... 05
766 " Siberian, Thorburn Improved. Green curled; hardy.......... 05
768 Thousand-headed. Valuable for cattle ................................... ${ }^{5} 5$
772 Jersey Winter Kale, or Cow Cabbage. For feeding cattle; very hardy... o5
774 Pe-Tsai. (The Chinese Cabbage.) Grows like Cos Lettuce................. . . 05
778 Sea Kale. Very fine; resembles celery.

| 10 | 25 | 80 |
| :--- | :--- | :--- |
| 10 | 25 | 80 |
| 10 | 30 | 90 |
| 10 | 20 | 60 |
| 10 | 25 | 80 |
| 10 | 20 | 55 |
| 20 | 60 | 2 | 00

## KOHLRABI

## Chou-Rave Colinabo תohirabi

Culture.-This is an excellent vegetable, and should be grown in every garden. Sow in spring, in rows I8 inches apart, afterward thinning the plants to 8 or 10 inches. If the weather is suitable the thinnings may be planted, but it is considered difficult to transplant. Keep the weeds down, and when the thickened stems above ground are 2 or 3 inches through they are fit to eat, and should be used at once, being tough when old. They are cooked same as turnips, and when well grown and used at the proper stage, are tender and very palatable, with a fine and delicate flavor.
780 Early White Vienna. Handsome and delicate; white ball. Pkt. 5 cts., oz. 20 cts., 1/4 lb. 60 cts., lb. $\$ 2$.
782 Early White Vienna. For frames. Pkt. Io cts., oz 30 cts., $1 / 4 \mathrm{lb} .85 \mathrm{cts}$., lb. $\$ 3$.
783 Early Purple Vienna. Purple ball, a very good sort. Pkt. 5 cts., oz. 25 cts., $1 / 4 \mathrm{lb} .75 \mathrm{cts} ., \mathrm{lb} . \$ 2.50$.
785 Early Purple Vienna. For frames. Pkt. IO cts., oz. 30 cts., $1 / 4 \mathrm{lb} .85 \mathrm{cts}$., lb. $\$ 3$.
786 Large White, or Green. Forms a large ball; not so fine, but more productive. Pkt. 5 cts., oz. $15 \mathrm{cts} ., 1 / 4 \mathrm{lb}$. 35 cts., lb. \$1.25.

## LEEK

## PoIreau Puerro Porro

Culture.-Sow very early in spring in drills 6 inches apart and I inch deep. Thin out to I inch. When about 7 inches high, transplant in rows 12 inches apart, as deep as possible, but do not cover the young center leaves. Water thoroughly if dry when planted out. Draw earth up to them as they grow; rich soil is required. Take up and store in earth in a cool cellar before winter weather. The seeds may also be sown in September, and the young plants transplanted in spring to where they are to remain.

790 Best Large Flag Winter. Hardy and productive
792 Large Rouen Winter. A standard sort; fine keeper

> Per pkt. Oz. 1/1b. ib.

Large Carentan, or Musselburgh. Distinct and dark-colored leaves; stout
in habit and hardy

## ${ }^{0} 5$

 20 $50 \quad 150$London Summer
0.5

We pay postage or express charges on all seeds bought by the packet, ounce or quarter pound

thorburn's maximum lettuce

## LETTUCE

## Laitue Lechuga Galat

Culture.-Sow 808, 822, 825, 826, 833 and 838 in hotbeds in March, and in the open ground as soon as it can be worked, and transplant to rows 8 inches apart. Sow in two weeks' time same varieties again for a succession, also Cos sorts. In August sow any of the varieties. In October some of these may be planted in frames, to head in winter and early spring. Always sow thinly and thin out well, or the plants will not be strong. The last spring sowing had better be grown where sown, being thinned out to 6 or 8 inches apart. To have Cos in good order they must be sown in a hotbed early in the year, and transplanted to a coldframe, so as to have good plants to set out at the opening of the ground. They require tying for a few days, when grown to blanch. Lettuce requires good ground, enriched with thoroughly rotted manure and well pulverized. The after-culture should be close and careful to secure the best results.
w. s. stands for white-seeded, b. s. stands for black-seeded

| 8 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 809 | Buttercup. Yellow, solid, small heads; for forcing or outdoors. w. s.... . . . . . . 05 | 20 | 50 |  | 50 |
| 810 | California Cream Butter. Very large, solid heads; inside very white. b. s. . 05 | 15 | 35 |  | 25 |
| 812 | Coldframe White Cabbage. For starting in coldframes and setting out early. w.s. | 15 | 35 |  | 25 |
| 815 | Deacon. Large, solid, summer cabbage variety. w. s...... . . . . . . . . . . . . . . 05 | 15 | 35 |  | 25 |
| 821 | Denver Market. Very curly heads; good for forcing or outdoors. w. s. ..... . 05 | 15 | 35 |  | 25 |
| 822 | Emperor Forcing Improved. Yellow, earliest of all; only for frames. w. s... 05 | 20 | 50 |  | 50 |
| 824 | Giant Crystal Head. A splendid cabbage Lettuce, large, solid; outside leaves bright green, inside crystal white, yellow heart, crisp, tender. w. s...... 05 | 15 | 35 |  | 25 |
| 825 | Glasshouse Thorburn. For forcing under glass. w. s................... . 05 | 25 | 75 |  | 50 |
| 826 | Golden Queen Forcer. Medium size, golden yellow, solid heads; early. w. s.: 05 | 20 | 50 |  | 50 |
| 827 | Grand Rapids Forcing. Large, tender; one of the best for forcing. b. s..... 05 | 20 | 50 |  | 50 |
| 828 | Gray-seeded Butter. One of the best; large head...... . . . . . . . . . . . . . . . 05 | 15 | 35 |  | 25 |
| 830 | Hanson Improved. Very large and solid; withstands the hot sun well. w. s.. 05 | 20 | 50 | 1 | 50 |
| 831 | Hubbard Market. A large cabbage variety; for forcing or open ground. w.s. | 15 | 35 |  | 25 |
| 833 | Large Boston Market Improved. Very large, solid heads; fine forcer. w. s. . 05 | 20 | 60 |  | oo |
| 834 | Large White-seeded Butter. Fine, large, solid heads; good summer sort w. s. | 20 | 50 |  | 50 |
| 835 | Mammoth Black-seeded Butter, Thorburn. A selected strain; large, solid yellow heads. Favorite variety of New York market-gardeners. | 15 | 35 | I | 25 |
| 836 | Market-gardener's Private Stock, Thorburn. A selected strain; solid, large heads, resisting the sun for a long time before shooting. b. s......... . 05 | 15 | 35 |  | 25 |
| 837 | Maximum, Thorburn. The largest, solidest, crispest and best. b. s. ....... 05 | 15 | 35 |  | 25 |
| 838 | May King. Extra-large, round, solid heads, light green outside, with clear yellow heart; very tender and of fine flavor. Splendid forcer. w. s....... 05 | 20 | 50 |  | 50 |

We pay postage or express charges on all seeds bought by the packet, ounce or quarter pound

## J. M. THORBURN \& CO., 33 BARCLAY ST., NEW YORK

## LETTUCE, continued

|  | . Pkt. | Oz . | b. | Lb. |
| :---: | :---: | :---: | :---: | :---: |
|  | Mignonette. Distinct russet-colored; very solid and compact. w. s.....\$0 05 | \$o 20 | \$0 50 | \$I 50 |
| 843 | Oak Leaf. A curled leaf variety of bright green color. 'w. s. . . . . . . . . . 05 | 0 | 50 | 150 |
| 844 | Passion. A medium-sized cabbage variety popular among southern marketgardeners. <br> b. s. | 1 | 35 | 25 |
| 845 | Salamander Improved. Fine, compact heads; resists summer heat. b. s. . 05 | 20 | 50 | 150 |
| 847 | Shotwell Brownhead. Large, handsome, tender heads; very hardy b.s. 05 | 20 | 50 | I 50 |
| 848 | Simpson Early Curled. A leading early sort; very tender. w. s........ 05 | 15 | 35 | 125 |
| $8+9$ | Simpson Black Seed. A superior variety; large, and of light color. b. s.. . 05 | 15 | 35 | 125 |
| 850 | Tennisball White Seed. A well-known forcing variety. w. s.......... 05 | 15 | 35 | I 25 |
| 852 | Tennisball Black Seed. Forms close, hard heads; for forcing. b. s. . . . 05 | 15 | 35 | 125 |
| 85.3 | Trocadero. Hardy; for spring or summer, green, tinged russet. w. s... . 05 | 20 | 50 | 150 |
| 855 | Yellow Winter, Thorburn. The finest of all coldframe sorts. w. s. . . . . 05 | 20 | 60 | 2 CO |

## ROMAINE, or COS VARIETIES



## MUSTARD <br> Moutarde Mostaza Senf

Culture.-Sow thickly during early spring, in shallow drills, and press the earth well down. For fall salad, sow in September, or in frames or boxes during winter.
870 Black. These seeds form the mustard of commerce
Per pkt. Oz. 1/4 lb . Lb.
\$0 05 \$0 10 \$0 25
871 White London. Leaves used for salads while young; grows very rapidly
$05 \quad 10 \quad 25$
873 Giant Southern Curled. Very large leaves . . . . . . . . . . . . . . . . . . . . \$0 05 IO I5 45
874 Chinese Broad-leaved. Leaves of agreeable flavor when cooked like spinach o5 $\quad$ IO $\quad$ I5 45
875 Fordhook Fancy. Very ornamental; plants of vigorous growth; leaves dark green, curved outwardly. If used as a vegetable, cook like spinach..... o5 Io $20 \quad 60$
876 Ostrich Plume. Leaves curled and frilled like an ostrich plume ......... 05 10 $20 \quad 60$

## MELON, MUSK (Cantaloup)

Culture.-Select a light, sandy, rich soil, and after all danger of frosts is over, and the ground has become warm and dry, plant in hills 4 to 6 feet apart each way, six to twelve seeds to a hill. When up and all danger of insects has passed, pull out all but three plants. Cultivate until the vines cover the ground, and pinch the ends of the growing shoots to induce early fruiting. Ashes, lime, or even dry road dust, is excellent to sift over young plants when the dew is on, to prevent the attacks of insects. A few hills for early use may be had by sowing in hotbeds, on pieces of sod or in pots. The seed may also be started out-of-doors under hand frames or glasses. It is quite important that proper soil be selected for growing Muskmelons.
879 Baltimore Market. Oblong; orange flesh, of fine quality; intermediate . $\$ 0 \quad 05 \quad \$ 0 \quad 20 \quad \$ 0 \quad 50 \quad \$ 1 \quad 75$
88 I Banquet. Beautifully netted, medium size, rich salmon flesh, fine quality.. o5 $\quad$ I5 $\quad 35 \quad$ I 25
883 Burrell's Gem. Selected stock. Reddish orange flesh; fine-grained and
spicy . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 05 20 I 50
885 Champion Market. Large, slightly elongated, netted; flesh light green; early o5 $20 \quad 50 \quad$ I 50
887 Defender. One of the very best yellow-fleshed sorts, medium size, oval in shape, flesh very firm and rich. Very vigorous and productive . . . . . . $05 \quad 20 \quad 50 \quad$ I 50
889 Emerald Gem. Small, extra-early; dark green skin, orange flesh; very sweet io
890 Hackensack. Large, round, and of good quality; a popular variety; early . 05
89I Hackensack, Extra-Early. Ripens io days earlier than the Hackensack. . o5
892 Jenny Lind. Small, green-fleshed; very early; good quality .............. 05 20 50 I 50
893 Long Island Beauty. On style of Hackensack. The earliest and finest in quality, and the most beautiful of all Muskmelons. . . . . . . . . . . . . . . . . $10 \quad 25 \quad 75 \quad 250$

We pay postage or express charges on all seeds bought by the packet, ounce or quarter pound.


NETTED GEM MUSK MELONS

## MELON, MUSK, continued

Melrose. Oval, dark green, densely netted; flesh thick, light green, shad-Per pkt. Oz. $1 / 4 \mathrm{lb}$. Lb. ing to $\quad$ el mon.
${ }_{897}^{896}$ Montreal, Green. Large, round, netted; flesh thick and light green; late
897 Netted Gem, Round. Nery early: small Gem, Oblong. Same as above, save in shape.
901 Nutmeg. Sweet, green flesh, very early; named from its shape.
$901 a$ Nutmeg Tip Top. An improved strain; very sweet; salmon flesh
903 Osage. Cocoanut-shaped, yellow flesh; light green netted skin.
904 Paul Rose. Handsome oval variety, rich orange flesh, very sweet
Skilly Ford. Improved Netted Gem; very sweet and fine navored; oblong Skillman's Netted. Green flesh, sweet and highly perfumed; oval shape. Early.
910 Surprise. Oblong; rich orange flesh of fine quality; early
912 Texas Cannon Ball. Round; handsomely netted; green flesh; prolific.
913 The Grand. Salmon-fleshed vasiety; fine flavor. See novelties
914 White Japan. Early, with light green flesh and white skin.
Winter Pineapple. An extraordinary melon, can be kept in splendid condition for months after being pulled. For the South only. So 05 \$0 I5 \$O 35 \$I 25
$10 \quad 25$
Pomegranate. Ornamental; for perfume; late

## IMPORTED VARIETIES OF MUSK MELON

## ENGLISH FRAME SORTS

Royal Favorite. Fine, white, thick flesh; a valuable sort
927 Lord Beaconsfield
930 Eclipse.
931 Eureka.
25
Red-fleshed Prescott. White skin.
oz., 50 cts.
15

## FRENCH VARIETIES

These sorts ripen outdoors here, and are well worthy of cultivation . Pkt. Oz

These are two of the latest Paris market sorts.

## MELON, WATER

## Melon d'Eau Zandia Waijermelone

Culture.-Treat the same as Muskmelon, except that they should be planted 8 or 10 feet apart, according to variety. Light soil is best.

Alabama Sweet Dark pren flin fer pkt Oz. 1/4b. Lb.
Black Boulder. Large, dark green skin; almost round..... o5 .... Io 25.

Black Spanish. Roundish, nearly black; dark red flesh; early........... 05 IO $20 \quad 10$
Boss. Oblong, dark green; flesh deep scarlet, and rind thin; intermediate... 05 Io
Blue Gem, or Iceberg. Bright red flesh; very sweet; fine shipper......... 05 Io
Bradford. Long and of dark color. Flesh sweet and tender.................. 05
Cole's Early. Medium size; red flesh; green skin. . . . . . . . . . . . . . . . . . . . . . .
Cuban Queen. Solid and heavy; skin marked regularly; excellent, early... 05 Io

We pay postage or express charges on all seeds bought by the packet, ounce or quarter pound

## MELON, WATER, continued




WATERMELON

## NASTURTIUM

Capucine Maraneula
Naşturtium
Culture.-Sow as soon as all danger of frost is past in drills about an inch deep. The tall kinds require fences or poles on which to climb. The seeds are used in flavoring pickles, or as a substitute for capers.
1020 Tall Crimson.
Per pkt. 5 cts., oz. I5 cts., $1 / 4 \mathrm{lb}$. 30 cts., lb. 75 c .
1021 Tall Yellow. Per pkt. 5 cts., oz. $15 \mathrm{cts} ., 1 / 4 \mathrm{lb} .30$ cts., lb. 75 cts.

## 1022 Tall Mixed. Per

 pkt. 5 cts., oz. 10c. 1/4b. 25 cts., lb. 75 cts.1023 Dwarf Mixed. Per pkt. 5 cts., oz. Io cts., $1 / 4 \mathrm{lb}$. 25 cts., lb. 75 cts.

We pay postage or express charges on all seeds bought by the packet, ounce or quarter pound

# OKRA or GUMBO 

Gombaud Quimbombo Sairan

Culture.-Sow late in the spring, after the ground has become warm, in drills 3 feet apart, where the plants are to remain. Thin out to from 9 to 12 inches. They should be well manured. They may also be raised in pots or a hotbed, and transplanted. For keeping, they should be pickled whilst small and tender.


## ORACH or FRENCH SPINACH

## Arroche Armuella

Culture.-Sow early in spring; cultivate and use like spinach.
1050 Red. Distinct; dark red leaves.
1052 White. Pale green leaves, almost yellow


MUSHROOM SPAWN

## Blanc de Champignon Seta ©hampignonbrut

Culture.-Mushrooms may be grown in cellars, under benches of greenhouses, or in sheds, wherever the temperature of 50 degrees can be kept up through the winter. The beds should be made from November to February, according to the time the Mushrooms are wanted, and it requires about two months for them to begin bearing. Secure fresh horsemanure, free from straw, and litter, and mix an equal bulk of loam from an old pasture with it Keep this under cover, taking care to turn it every day to prevent heating, until the pile is large enough to make a bed the required size. Three or 4 feet wide, 8 inches deep and any length desired, are the proper proportions for a bed; but these may be varied. Prepare the mixture of loam and manure, making the bed in layers, and pounding down each with the back of the spade. Leave this to heat through for a few days, and as soon as the heat subsides to 90 degrees, make holes in the bed about a foot apart each way, into which put pieces of the spawn 2 or 3 inches in diameter; fill up the holes with the compost, and at the expiration of a week or ten days the spawn will have thoroughly diffused itself through the bed. Spread a layer of fresh soil over the heap to the depth of 2 inches, and cover with 3 or 4 inches of hay, straw or litter. Examine the bed often to see that it does not get dry. Take special care, however, when water is given, that it be at a temperature of about 100 degrees.


From our experience with English, French and American Spawn, we find there is an important difference between them. If the manure in the bed is in proper condition, the French Spawn will take hold and grow fully as well as the other two; but if the bed is not in the right state, it will often rot. The American and English Spawn, on the contrary, after starting a little, will remain in a comparatively dormant state for a long time without losing its vitality. It is well to keep these points in mind in ordering spawn. The French spawn should be slightly moistened by sprinkling with water for two or three days before planting.

$$
\text { Per lb. Io } \mathrm{lbs}
$$

1054 American Spawn. In bricks. Per brick 18 cts., 10 bricks $\$ 1.50$. per 100 bricks, $\$ 10$.
1055 English Spawn. In bricks.
O 15 \$1 00
1056 French Spawn. In bulk. ...................................................................... . . . 30 . 50

## Transportation charges extra

## MARTYNIA (For Pickles) Gemjentyorn

Culture.-Sow in May in the open ground, 3 feet apart in each direction, where the plants are to remain; or the seed may be sown in a hotbed, and the seedlings afterward transplanted. These varieties are productive, and fine for pickles. Pick when small and tender, and preserve the same as cucumbers.


We pay postage or express charges on all seeds bought by the packet, ounce or quarter pound

## ONION

Oignon Cebolla 3wiebel
Culture.- Sow in rich, sandy soil, in drills i foot apart, as soon as the ground can be worked in spring-at the rate of 4 to 5 lbs. to the acre. Thin to 3 or 4 inches, using the rake and hoe frequently to keep down the weeds. The finest Onions are produced by the new method of sowing the seed in hotbed in February and March and transplanting the seedlings to the open ground.
1060 White Early Barletta. A small white Italian sort; earliest.
1061 " Queen. Pure white, small, flat, extra-early; fine for pickling.
1062 ." Pearl. Extra-early, round; white; fine
1063 " ${ }^{2}$ Resina Pearl. A very small Pearl strain; the earliest of all.
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" Large Portugal. The standard large flat sort of the New York
" Large Globe (Southport Strain). Very large and handsome........................................................
" Mammoth Garganus, or Silver King. Large silvery white Italian.
" Paris. Silver skin, fine Italian sort
Per pkt. Oz. 1/41b. Lb.
" Bermuda (Teneriffe-grown)
" " Crystal Wax (Teneriffe-grown)
\$o 05 \$o $20 \$ 065 \$ 25$
" Tripoli (El Paso or Mexican). Large white Italian variety.
" Bunching, or Italian Silverskin
" Dutch Round Hard. Fine pickling sort.
". Vaugirard Winter. Sow in September for early spring Onions
" Welsh. The leaves are used for salad early in spring. Sow in fall.
Yellow Danvers. A standard sort; early and a good keeper.
" Globe Danvers. Of more globular shape: keeps well..
$\begin{array}{lllll}05 & 20 & 60 & 2 & 00 \\ 05 & 20 & 60 & 2 & 00\end{array}$
$\begin{array}{lllll}05 & 20 & 60 & 2 & 00 \\ 05 & 25 & 75 & 2 & 50\end{array}$
$05 \quad 20 \quad 60 \quad 200$
$\begin{array}{lllll}35 & 1 & 00 & 3 & 00 \\ 40 & 1 & 25 & 4 & 00 \\ 20 & & 60 & 2 & 00 \\ 15 & & 50 & 1 & 50 \\ 35 & 1 & 00 & 3 & 50 \\ 35 & 1 & 00 & 3 & 50 \\ 20 & & 60 & 2 & 00 \\ 20 & & 50 & 1 & 50 \\ 25 & & 75 & 2 & 50 \\ 25 & & 75 & 2 & 50 \\ 15 & & 50 & 1 & 50 \\ 15 & & 50 & 1 & 50 \\ 15 & & 50 & 1 & 50 \\ 20 & & 65 & 2 & 25 \\ 20 & & 60 & 2 & 00 \\ & & & & \\ 20 & & 60 & 2 & 00 \\ & & & & \\ 40 & 1 & 25 & 4 & 00 \\ 20 & & 60 & 2 & 00 \\ 20 & & 65 & 2 & 25 \\ 25 & & 75 & 2 & 50\end{array}$
" Globe Spanish, or Prizetaker. Immense size; globe-shaped.... solid and crisp. Early and a good keeper.

05

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| 05 | 20 | 60 | 2 | 00 |
| 05 | 20 |  | 65 | 2 |
| 25 |  |  |  |  |
| 05 | 25 |  | 75 | 2 |

. Ailsa Craig. A splendid yellow globe variety, grown largely for

. 05

Red Australian Brown. Medium size, hard solid; very early.......
. 05
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10 IO92 Red Early
 Globe. Like above, but earlier and $\begin{array}{lllll}\text { not so large o5 } & 25 & 75 & 2 & 50\end{array}$ 1093 Red Early Flat. Medium size, very early, deep red; mild flavor. $05 \quad 20 \quad \begin{array}{llll}65 & 2 & 25\end{array}$
1096 Red Mammoth Garganus. Very large Italian sort........ $05 \quad 20 \quad 60$ I 75 1117 Chives Seed. IO 75 1122 Yellow Potato Onion (Seed). .... I

| 35 | 1 | 00 | 3 | 00 |
| :--- | :--- | :--- | :--- | :--- |

1124 Shallot Seed $10 \quad 35 \quad 100 \quad 350$

## ONION SETS

Plant in drills about 12 inches apart and 4 inches in the rows. They must have high c.lture.

These are the prices ruling in January; later on they may be higher.
Yellow Onion Sets. Per qt. 20 cts ., $1 / 2 \mathrm{pk}$. 60 cts., pk. \$1, bus. $\$ 3.50$.
White Onion Sets. Per qt. 25 cts., $1 / 2$ pk. 75 cts., pk. \$1 25 , bus. $\$ 4.50$.
Red Onion Sets. Per qt. $20 \mathrm{cts} ., 1 / 2 \mathrm{pk} .60$ cts., pk. \$1, bus. \$3.50.

## PEAS

## PoIs Chicharos o Guisantes Erbjen

Culture.-A week may be gained in earliness by sowing a quantity in moist sand placed in a box in the cellar, and planting outside when well sprouted. Light, dry soil, not over rich, suits the Pea. Sow as early as the ground can be worked, and again every ten days for succession. Peas may be sown in this vicinity as late as the 2oth of August. Medium and late Peas must be planted early; Extra-Earlies may be planted again in August Sow in single or double rows, from 4 to 6 feet apart, according to the different heights, about an inch apart in the row (except such sorts as we note to sow thinly) and 4 inches deep. In this climate, the O'Rourke Pea, if planted from the Ioth to the last of August, will produce a fair crop for fall picking, when Peas will be most acceptable. Hoe often and keep the ground clean and fine. The tall sorts can be made to bear more freely by pinching in The dwarf varieties may be grown in beds like bush beans, with rows about the same distance apart. The holes which are sometimes found in Peas are caused by the Pea weevil (Bruchus pisi). The beetles lay their eggs on the young pods, and the larvæ, as soon as hatched, make their way through the pods and into the nearest peas. If the new aphide attacks the Peas, spray the vines every day with clear water of the same temperature as the atmosphere.

Those marked with a star (*) are wrinkled marrows, and, unless otherwise stated, should be sown thicker than the round Peas, and not until the ground has become warm, as they are more liable to rot. They are the finestflavored of all Peas. Those marked thus ( $\dagger$ ) are large-podded sorts.
We supply packets of Peas at 10 cts. each, postpaid; other quantities NOT prepaid; add transportation charges at the rate of 5 cts . per pint, Io cts. per quart

EXTRA-EARLY

Thorburn Extra-Early Market. Our standard market-
garden extra-early Pea; productive and profitable to grow. $21 / 2$ So 15 So 30 Si oo Si 75 S6 oo Diniel O'Rourke Improved. Extra-early; favorite marketgarden sort. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $21 / 2$ I5
$\dagger$ Thomas Laxton. A cross between Gradus and one of the extra-early sorts. Ripens within a day or two of the earliest round varieties, very productive. The pods are large and contain 7 or 8 large wrinkled Peas of the finest flavor. 3
II $37 \dagger^{*}$ Gradus, also called Prosperity. One of the finest extra-early Peas yet introduced; is in condition to pick about four days after Extra-Early Market. Pods very large, filled with large wrinkled deep green Peas of finest quality . . . 3
II39 *The Sherwood. Heavy yielder, pods of a deep rich color filled with 8 to io Peas of finest flavor. American Wonder, with much broader pods filled with large Peas of the finest flavor, and produced in greater abundance.

| 30 | I | 00 | 1 | 75 | 6 | 00 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 30 | 85 | 1 | 50 | 5 | 50 |  |
| 30 |  | 85 | I | 50 | 5 | 50 |
| 30 | 1 | 00 | 1 | 75 | 6 | 50 |

*Premium Gem. Early; straight pods, well filled........... . . .
*McLean Little Gem. Early; straight pods. . . . . . . . ....
*Gregory's Surprise. A fine wrinkled variety, and only four days later than our Extra-Early market.flavor; very early and productive; one of the finest sorts.. 315I5

## EARLY AND MEDIUM

*The Lincoln. Long curved deep green pods, well filled with Peas of finest flavor. Very productive and one of the best second-early sorts of recent introduction................... IT/2
$1160 \dagger^{*}$ British Wonder. Large pods filled with Peas of finest fiavor. Plant and pods dark green. Dwarf wrinkled sort.
*Sutton's Dwarf Defiance. Straight long pods, dark green in color, closely packed with large Peas of superior flavor. Very productive.20
1162
*Majestic. A splendid mid-season sort, dark green pods; very prolific. ................... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

| 30 | I | оо | 1 | 75 |  | 00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 1 | 00 | 1 | 75 |  | 00 |
| 30 | 1 | 00 | I | 75 |  |  |
| 30 | 1 | Oo | 1 | 75 |  |  |
| 30 | I | о0 | 1 | 75 |  |  |
| 30 | I | оo | I | 75 |  |  |
| $\begin{aligned} & 30 \\ & 90 \end{aligned}$ | I | oo | I | 75 |  |  | 90

$\left.\begin{array}{lllllll}35 & 1 & 25 & 2 & 00 & 7 & 00 \\ 30 & 1 & & & 1 & & 6\end{array}\right)$ Germania. See novelties ....... per gill 20 cts., $1 / 2 \mathrm{pt}$. 30 c ... I $1 / 2550$

| 35 | 1 | 25 | 2 | 00 | 700 |
| :--- | :--- | :--- | :--- | :--- | :--- |



GRADUS PEAS (See page ${ }^{31}$ )

| 2 | CATALOGUE OF HIGH-CLASS | SEEDS |  | 0 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EARLY AND MEDIUM PEAS, continued $\begin{gathered}\text { Height } \\ \text { in feet }\end{gathered}$ | Per $\mathrm{pt} .$ | Per qt. | $\begin{gathered} \text { Per } \\ \frac{1}{2} \mathrm{pk} \end{gathered}$ | Per pk . | Per bus. |
| $\text { I I } 66$ | $\dagger$ Pride of the Market. Very large pods, green Pea; sow thinly 2 $\dagger$ *Rivenhall Wonder. Large deep green pods, each containing |  |  | \$1 25 | \$2 00 | \$7 00 |
|  | 7 to io large very sweet Peas of fine flavor............ 2 | 15 | 30 | oo | 75 | 6 оо |
| 1167 | *Prince of Wales. Heavy cropper; Peas of fine flavor | 15 | 30 | 85 | 50 | 5 о0 |
|  | *Champion of England. A well-known standard sort; sow thickly. | 15 | 30 | 1 OO | 75 | 600 |
| 1169 | *Dwarf Champion. A dwarf form of the popular Champion of England with large pods, very productive; finest quality 2 | 15 | 30 | 100 | 75 | 600 |
| $1170$ | Duke of Albany (American Champion). Immense pods on style of Telephone; very superior. | 15 | 30 | I 00 | 75 | $6 \cdot 50$ |
| 1171 | *Edward VII. Large Sweet Peas of best quality; beautiful lustrous green pods. | 20 | 35 | I 25 | OO | 700 |
| 1172 | Fillbasket. A standard productive sort of good qu | 15 | 30 | 85 | 50 | 5 00 |
| 1173 | $\dagger^{*}$ Heroine. Large, full pods; enormously productive......... $21 / 2$ | 15 | 30 | 00 | 75 | 6 оо |
| $1174$ |  | 20 | 35 | I 25 | 00 | 7 00 |
| $1175$ | $\dagger^{*}$ Prince Edward. Very large pods, measuring about 7 inches, filled with II to 13 large dark green Peas of best quality. Very prolific and of robust habit | 20 | 35 | 125 |  | 8 оо |
|  | $\dagger^{*}$ Shropshire Hero. Very productive. Long, handsome pods; fine flavor. | 15 | 30 | 85 | 50 | 5 Oo |
| 1177 | *Yorkshire Hero. A spreading variety; productive; sow thinly. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 ¹/2 | 15 | 30 | 85 | I 50 | 550 |

## MAIN AND LATE CROP

${ }^{11} 78 \dagger^{*}$ Admiral Dewey. Enormous pods; large wrinkled Peas of fine flavor; very productive.................................
II8I *Juno. Large, straight pods; fine quality; very productive.... I $1 / 2$
$1183 \dagger^{*}$ Stratagem. Very large pods; Peas of finest quality........ 1 I/2
$1184 \dagger^{*}$ Queen. Very large, handsome pods, filled with large, dark green Peas of finest flavor; first-class main-crop variety.. .
$\dagger$ *Sutton's A1. A splendid main crop sort, with large, rather

$\dagger^{*}$ Sutton's Exhibition. Long, broad handsome pods each containing 8 to io immense Peas of finest flavor. Very productive and of robust habit............................. 4
$1185 \dagger$ Telegraph (L. I. Mammoth). Large pods and Peas. ..... . 4
$1186 \dagger^{*}$ Telephone. Enormous pods and Peas of best quality...... 4
1187 White Marrowfat. A favorite; heavy yielder............. . . 4 1188 Black-eyed Marrowfat. Very hardy and prolific; for market. 3 feet high. Pt. I5 cts., qt. 20 cts., $\frac{1}{2}$ pk. 60 cts., pk. $\$ \mathrm{I}$, bus. $\$ 3$.

## SUGAR PEAS (EDIBLE PODS)

Sugar Peas have edible pods which are eaten when young.
II90 Mammoth Grey-seeded Sugar. Immense pods. 5 feet high. Pt. 20 cts., qt. 35 cts., $\frac{1}{2}$ pk. $\$ \mathrm{I} .25$, pk. $\$ 2$, bus. $\$ 7.50$.
1193 Dwarf Sugar. Very early. Pt. 15 cts., qt. 30 cts ., $\frac{1}{2}$ pk. $\$ \mathrm{I}, \mathrm{pk}$. I.75, bus. $\$ 6.50$.
PARSLEY and PARSNIP See page 34 .

## PEPPER

Piment
Pimiento
Bfeffer
Culture.-Sow in hotbeds in March, and, when the soil has become warm, set in rows 2 feet apart and 18 inches in the rows; hoe frequently. The plants may also be forwarded in small pots.
1198 Bell, Large. Large, bright red; largely used for pickling. It is of such mild flavor that it may be eaten as a vegetable. Pkt. 5 cts., oz. 25 cts., 1/4lb. 65 cts., lb. $\$ 2.25$.
1199 Chinese Giant. Very large; flesh very mild and thick; bright scarlet color. Pkt. IO cts., oz. 45 cts., $1 / 4 \mathrm{lb}$. $\$ \mathrm{I} .50, \mathrm{lb} . \$ 5$.
1203 Cayenne, Long Red. Brigh: red, slender pods, 3 inches long; pungent. Pkt. 5 cts., oz. 25 cts., $1 / 4 \mathrm{lb} .65$ cts., lb. $\$ 2.25$.
We supply packets of Peas at 1o cts. each, postpaid


## J. M. THORBURN \& CO., 33 BARCLAY ST., NEW YORK

## PEPPER, continued

1204 Celestial. At first fruit is yellow, but when fully matured a deep scarlet Per pkt. Oz. $\quad$ I/llb. Lb .
1207 Golden Dawn Sweet. Very handsome and distinct, and of mild flavor;
1208 Golden Queen Mammoth. Very large fruits; rich golden yellow color; early.... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 05
1210 Monstrous. Very large and of mild flavor; for use when green........... . .
$1210 a$ Neapolitan. Very early and productive. Large and swect................... . . 05
1212 Red Cherry. Cherry-shaped; for pickles, for which they are largely used.... 05
1213 Red Chili. Very productive; very small, red and very pungent............ 05
1214 Red Cluster. A new type of Chili, with upright, bright red fruits......... 05
I2I6 Ruby King. Bright red, 4 to 6 inches long; mild; best for stuffing. ....... 05
1217 Squash, Large. Productive; for pickles
05

1220 Sweet Mountain. Large size; regular, handsome shape, mild flavor..... 05
122 I Sweet Spanish. Large, mild; used for salad.
05

1225 Tabasco. True. Bush 3 feet high; small, long bright red fruit in clusters; very hot and the best for pepper-sauce and pickling
$\begin{array}{llllll}10 & 45 & \text { I } & 50 & 5 & 00\end{array}$
I228 Upright Sweet Salad. Finest of all. See novelties.

## PARSLEY

## Persil Periīil Beterfilie

Culture.-Soak the seeds a few hours in lukewarm water, and sow early in spring, and until the middle of July in drills I foot apart. Have the soil thoroughly pulverized, and after sowing the seed pat it down tightly with the spade. Thin out the plants to 4 inches. To preserve in winter, transplant to a light cellar or coldframe. No. I24I should be thinned out while young, and managed in after-cultivation the same as carrots and parsnips. The roots are edible either raw or cooked.
1235 Thorburn's Extra Curled. Superior.
Per pkt. Oz. ${ }^{1 / 4} 1 \mathrm{~b}$. Lb.

1236 Thorburn's Moss Curled. Very pretty 00 \$o Io \$0 20 Lb. 05 10 \$0 $\$ 060$

1237 Fern-leaved. Fine curled 05
1239 Plain. The ordinary form . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 05
1240 Beauty of the Parterre. For edging, and equally good as a condiment... 05
I24I Hamburg, or Rooted. Edible roots........................................... . . . 05
1245 Glory of Erfurt, Rooted. Extra fine.
05

## PARSNIP

## Panais Chirijia Faßtiafe n

Culture.-Sow as early in the spring as the ground can be worked, in rich soil, in drills 18 inches apart The ground should be well and deeply dug. Thin to 6 or 8 inches in the rows. Hoe and cultivate often to keep down weeds.


## PUMPKIN

## Potiron Calabaza Grō̄̃ ィürbī்

Culture.-May be planted middle of spring, among the Indian corn or in the field or garden, in hills 8 or Io feet apart each way, four seeds in a hill. In other respects are cultivated in same manner as melons and cucumbers. Avoid planting them near other vines.



NOROTON BEAUTY POTATO

## SEED POTATOES $\underset{\substack{\text { GRowN EXPRESSLy } \\ \text { FOR SEED }}}{ }$ <br> Pomme de Terre Patatas תartoffeln

Culture.- In order to have the best success in growing Potatoes, it is necessary to plant as early as the ground can be made ready. Select a rich soil, and plant in rows 3 feet apart, and the sets I foot in the rows. If wood ashes and plaster can be procured, sow a good dressing over the field after the Potatoes are up. If a very early crop is desired, it will be necessary to sprout the Potatoes before planting. Cut the potatoes into pieces of any size desirable, and place in a warm, light room for four to six weeks before required for planting in the open ground. During this time shoots will start out strong and vigorous, so that, as soon as planted, they will send out roots and grow much more rapidly than those treated in the ordinary way. Another method is to place the sets in a hotbed two weeks before they are wanted, and then lift carefully and set out on fresh horse-dung, so that the heat will cause them to start at once. If the Colorado Potato-beetle makes its appearance, the vines must be dusted with Paris green mixed with about 80 parts of plaster; or what is better, mix the Paris green in water, one small tablespoon to a pail, and apply with a small brush or broom. Take care to stir the mixture of ten, or else the Paris green will settle to the bottom. Two or three applications during the season will usually suffice to clean off all the beetles. Three to four barrels to the acre.
These are the prices ruling in January; later on they may be higher. We ship potatoes entirely at customers' risk

## EARLY VARIETIES

| I301 | NOROTON BEAUTY. The finest and most productive extra-early Potato grown. Handsomer in appearance and more uniform in shape $1 / 2 \mathrm{pk}$. than any other sort. Its table quality is superb . . . . . . . 1/2 bus. $\$ 1.50 . \$ 065$ | $\begin{aligned} & \mathrm{Pk} . \\ & \$ \mathrm{I} \mathrm{OO} \end{aligned}$ | Bus. $\$ 250$ | $\begin{aligned} & \mathrm{Bbl} . \\ & 55 \quad 50 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1302 | The Thorburn. We recommend it as one of the best for first crop. It is very early and of the finest quality; also very productive and of good size and form | 65 | 00 | 450 |
| 1304 | Thorburn's Beauty of Hebron. Slightly flesh-colored skin, with pure white flesh. Very productive and of the finest quality; a first-class early variety | 65 | 200 | 425 |
| 1307 | Irish Cobbler. Fine white; vigorous grower. . . . . . . . . . . . . . . . . . . . . . 40 | 65 | 200 | 450 |
| 1309 | Bovee. Extra early; very productive; of fine quality; flesh white. . . . . . . 40 | 65 | 200 | 450 |
| 1310 | Early Rose. Popular market sort; very early; fine quality; very productive. 40 | 65 | 200 | 425 |
| I3II | Early Norther. Extra early; prolific; shape of Early Rose; fine quality... . 40 | 65 | 200 | 425 |
| 1312 | Queen. Early, productive, and of fine quality . . . . . . . . . . . . . . . . . . . . 40 | 65 | 200 | 425 |
| 1313 | Bliss' Triumph. Very early and very productive; handsome color; resists disease well. Good sort for the South . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 40 | 65 | 200 |  |

## INTERMEDIATE AND LATE POTATOES

| 14 | Gold Coin. A splendid main-crop variety of remarkable productiveness and finest table quality; slightly oblong form, light golden skin; flesh pure white, fine-grained; cooks very dry | $\text { \$o } 65$ | Bus. <br> \$2 00 | $\begin{gathered} \text { Bы. } \\ \$ 425 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1315 | Carman No. 1. This most valuable Potato was introduced by us in 1894 , and it is a recognized high-class standard sort the world over. The finest second-early Potato ever offered | 05 | 00 | 425 |
| 1318 | Uncle Sam. Handsome shape, good size, fine quality | 65 | 200 | 4 =0 |
| 13 | Sir Walter Raleigh. Very productive; white flesh of best quality | 65 | 0 | 450 |
| 1320 | Rural New Yorker. Very few and shallow eyes; pure white skin and flesh; immense yielder; fine table quality | 65 | 00 | $4=5$ |
| 132 I | Green Mountain. Oval shape, white skin and flesh; excellent; heavy yielder | 65 | 2 |  |



1330 *Turnip, Early Scarlet. Very early. The French favorite. .

## RADISH

## Radis et Rave <br> Rabanos y Rabanitos

Sabies und Rettig
Culture.-Sow as soon as the ground is dry in the spring, in rows 8 to 12 inches apart, every week or ten days for a succession, up to the middle of June, after which they are but little used, unless a cool northern spot can be had, where the ground is shaded during part of the day. They should be sown in light, rich soil, as a crisp Radish cannot be produced in heavy soils Sow also in early fall for late crops and winter use. Sow 8 to io pounds to the acre. Radishes should be eaten when quite small; it is a mistake to let them grow too long and too large. This applies particularly to the French Breakfast and small turnip-shaped sorts.

Those marked with an asterisk (*) are best suited for market-gardeners.

Per pkt. Oz. $1 / 1 \mathrm{lb}$. Lt. I33I * " " " Forcing. Crisp; very early .............................. 05 Io 20 . 60 1334 * " " " White-tipped. Very early; for frames or outdoors 05 $10 \quad 20 \quad 50$ 1336 " " " " " Forcing ................................ 05 10 10 20 60 1337 " " Deep Scarlet. Very early; crisp. . . . . . . . . . . . . . . . . . . . . 05 1338 " " " "Forcing...................................... 05 1339 * " " Scarlet Gem White-tipped Forcing .................... o5 1340 * " Cooper's Sparkler. Carmine-scarlet, white-tipped. Fine for forcing or for open ground. . . . . ...................... 05 10 $25 \quad 70$
$1340 a$ " " Triumph (Speckled Beauty). Very prettily striped or mottled scarlet or white; fine forcer ................... 05

| 05 | 15 | 35 | 1 | 00 |
| :--- | :--- | :--- | :--- | :--- |

134 * " " Scarlet Globe-shaped. Fine for forcing or open ground. 05 $\quad 10 \quad 20 \quad 65$ 1342 " " Crimson Giant. Double the size of the above, yet never pithy. Equally suitable for forcing or outdoors; flesh very tender and crisp................................. 05
1343 * " " Non Plus Ultra. Extra-early scarlet forcing ............ 05
1344 " " Deep Blood-Red. Extra early; for forcing or outdoors ... o5
${ }^{1345}$ " " White, or Box. For forcing; flesh pure white and sweet .. 05
1347 " Large White Summer. Of large size; roundish............... o5
$1348^{*}$ " Golden Summer. Smooth and bright skin ................... 05
I350 " Yellow Ball. Small; very early ................................... . . 05
1351 *French Breakfast. Pink and white; early.................................. 05
I352 * " "Forcing. Very rapid-growing, tender and crisp...... 05
05
05

| 10 | 20 | 65 |
| :--- | :--- | :--- |
| 10 | 20 | 60 |
| 10 | 20 | 60 |
| 10 | 20 | 60 |
| 10 | 20 | 60 |
| 10 | 20 | 60 |
| 10 | 20 | 60 |
| 10 | 20 | 50 |
| 10 | 20 | 60 |
| 10 | 20 | 60 |

## RADISH, continued

## Per pkt. Oz. 1/4lb. Lb



## RAMPION

## RAIPONCE Reponche Rapunzel=Rübe

Culture.-Sow in the open ground early in May, either broadcast or in drills io inches apart. As the seed is very fine, it merely requires to be pressed firmly into the soil. Thin out the seedlings if they come out too thick, and water frequently during hot weather. The roots may be gathered for use from October onward throughout the winter.

Per pkt. Oz. $1 / 1 \mathrm{lb}$. Lb.
1410 Rampion. The roots and leaves are excellent as salad.
. 0 10 \$0 30 \$0 $85 \$ 3$ 00

## ROQUETTE

Culture.-Sow early in spring, in rows, and thin out to 8 or io inches. If kept well scuffled and watered the tart flavor of the leaves is greatly diminished. This flavor is not pronounced in the small leaves, which are used for salad. The flowers, appearing from May to June, have very much the odor of orange blossoms. Pkt. 5 cts., oz. I5 cts., 1/4lb. 40 cts., lb. $\$$ I. 25.

## RHUBARB

Culture.-Sow seed in a coldframe, in a fine, rich sandy loam, about the first of March, in drills 4 inches apart. Keep the frames covered during nights and cold days, so that the soil will not freeze, and in six or eight weeks the plants will be large enough to set in the open ground. Transplant to a rich soil, and set in rows i2 inches apart and 12 inches in the row. The following spring transplant again to a permanent location, setting 4 or 5 feet apart each way. In good soil Rhubarb is ready to use the second year from seed. When roots are set out, plant them 4 or 5 feet apart each way, and keep the weeds down. If roots are used, a crop may be had after one season, which is much better than sowing seed where only a few plants for family use are needed. In the fall the bed should have a thick dressing of coarse manure, to be spaded under in spring

1425 ROOTS, strong. I5 cts. each, \$i.50 per doz. Transportation charges extra.

## SCOLYMUS

The roots resemble a small parsnip, and will keep through the winter like a turnip. It is cultivated exactly like the carrot, except that it should be grown in rows 3 feet apart and 18 inches in the rows. It is eaten boiled, like salsify. Pkt 5 cts., oz. 25 cts., $1 / 4 \mathrm{lb} .75$ cts., lb. $\$ 2.50$.

## SCORZONERA

CORZONERE Escorzonera Scorzionwurzel
Culture.-Cultivate the same as salsify. It is cooked in the same manner, but, on account of being somewhat more difficult to raise, is seldom seen in cultivation. Considered by many superior to salsify. It is also called Black Salsify. Pkt. Io cts., oz. 30 cts., $1 / 4 \mathrm{lb} .85$ cts., 1 lb . $\$ 3$

We pay postage or express charges on all seeds bought by the packet, ounce or quarter pound


SALSIFY, THORBURN IMPROVED THICK-ROOTED
1455 Garden, Large French
1456

# SALSIFY, or VEGETABLE OYSTER 

## Salsifis Ostion Vegetal wajerwurgel

Culture.-Sow as early as the ground can be worked in the spring, in drills I2 inches apart, I inch deep, and thin out to 6 inches in the row. Keep them free from weeds. Cultivate the same as for carrots and parsnips. A part of the crop may be left in the ground till spring, when it will be found fresh and plump. The roots are cut into pieces $1 / 2$ inch long, boiled until tender, and then served with drawn butter, in which way it is a delicious vegetable. They are also mashed and baked like parsnips, and have a sweet and agreeable flavor. Mashed and fried, the flavor is much like that of the oyster. Sow 8 to io pounds to the acre.
1430 Long White French. Pkt. 5 cts., oz. 20 cts., 1/41b. $50 \mathrm{cts.}, \mathrm{lb}. \mathrm{\$ 1.50}$.
1435 Mammoth Sandwich Island. Large. Pkt. 5c., oz. 20c., 1/41b. 50c., lb. $\$ \mathrm{I} .50$.
1436 Thorburn's Improved Thick-rooted. Thick and smooth. Pkt. 5 cts, oz. 20 cts ., 1/4 lb . 60 cts., lb. \$2.

## SKIRRET (See page 4I)

## SORREL

## Oseille Acedera Gauerampfer

Culture.-Sow in spring in drills 18 inches apart, in a rich soil, and keep the flower-stems cut off as they appear. It remains in the ground year after year, and only needs to be taken up and divided once in four or five years. To be cut and cooked precisely like spinach; or it is excellent cooked with it, one third Sorrel to twothirds spinach. It is also used for soups. Very nice to be eaten after it has become cool. Inasmuch as the hot sun tends to increase its acidity, a northern exposure is preferable.
$\begin{array}{llll}\text { Per pkt. } \\ \$ 0 & 05 \\ \$ 0 & \text { Oz. } \\ \$ 0\end{array}$
Extra-large improved strain
\$0 05 \$0 10 \$0 25 \$0 80

## SPINACH

## EPINARD

Espinaca
Spinat
Culture.-Sow in early spring, in drills a foot apart (io to 12 lbs. to the acre), every two weeks for a succession, and, as it grows, thin out for use. For fall use, sow in August and for winter crop in September. Cover that which is left out over winter with straw or leaves after the weather becomes quite cold. Keep clear of weeds. Sow the seeds of New Zealand in hills 2 feet apart each way, three or four seeds in a hill.
1460 Round Viroflay (Thick-leaved), Has very large, thick, dark green leaves; Pkt. $\quad \mathrm{Oz}$. $\quad$ /1b. Lb . the favorite market-gardener's sort for fall or spring sowing $\ldots . . . .$. \$0 05 \$0 $10 \$ 015$ \$0 30
${ }^{1461}$ Long Season, Thorburn's. Stands longer before running to seed than any other sort except New Zealand
$05 \quad 10 \quad 15 \quad 35$

1462 Round-leaved Flanders. A standard sort........................................ o
1464 Lettuce-leaved. Popular French sort ...................................... os
1465 Gaudry (de) Improved, Large Round. A very large and improved broadleaved sort of recent introduction. ...........................................
1466 Curled-leaved Savoy, or Bloomsdale. Large, curled and wrinkled leaves;

1467 Long-standing (Round Thick-leaved). Dark green; leaves large and
1467 Long-standing (Round Thick-leaved). Dark green; leaves large and

${ }^{05}$

05
10 $\quad 15 \quad 35$
$\begin{array}{ll}1469 & \text { Prickly, or Winter. Vigorous and hardy; recommended for fall sowing.... } \\ 1472 & \text { Triumph. An improved long-standing sort.................................... }\end{array}$
1475 New Zealand Summer. Not a spinach, but used as such. Grows $11 / 2$ feet high and is very prolific; does well in hot summer weather when the ordinary spinach cannot be had; valuable for hot climates. Soak the seed in hot water before using $0510 \quad 30$35

| 10 | 15 | 30 |
| :--- | :--- | :--- |
| 10 | 15 | 35 |

## SWISS CHARD, or SILVER BEET

This is a Beet producing leaves only, of a quality superior to those of the ordinary Beet, and excellent as greens. Cultivate about the same as spinach, by sowing the seed in early spring, in drills about a foot apart. As it grows, thin out for use, and keep clear of weeds if success is desired. Good cultivation will greatly increase the delicacy and tenderness of the leaves. Pkt. 5 cts., oz. Io cts, $1 / 4 \mathrm{lb} .20 \mathrm{cts} ., \mathrm{lb} .50 \mathrm{cts}$.


VARIOUS TYPES OF SQUASH

## SQUASH

## Courge Calabaza Speife ßürbiß

Culture.-Sow in hills in the same manner and at the same time as cucumbers and melons, the Bush varieties 3 to 4 feet apart, and the running kinds from 6 to 9 feet apart.

## BUSH VARIETIES



## RUNNING VARIETIES

| 1530 | Bay State. Hard, blue shell; for fall or winter . . . . . . . . . . . . . . . . . . . . . . . 05 | 10 | 25 | 80 |
| :---: | :---: | :---: | :---: | :---: |
| 1532 | Boston Marrow. Oval; bright orange; flesh yellow and fine............ 05 | 10 | 25 | 70 |
| 1534 | Canada Crookneck. Small, well-known winter sort; green skin......... . c5 | 10 | 25 | 75 |
| 1536 | Cocoanut. Of first-rate quality and very prolific . . . . . . . . . . . . . . . . . . 05 | 10 | 25 | 80 |
| 1537 | Delicata. Orange-yellow, striped green; small size, but very prolific; it is extra early, solid, and a good keeper; flesh dry and of fine quality.... 05 | 10 | 25 | 80 |
| 1538 | Delicious. Green skin, orange flesh; fine-grained, sweet and dry........ . 05 | 10 | 30 | 90 |

We pay postage or express charges on all seeds bought by the packet, ounce or quarter pound

SQUASH, RUNNING VARIETIES, continued


## VEGETABLE MARROW

1560 English. The true English strain; cream-color, merging into deep yellow; white flesh; about 9 inches long
1562 Italian (Cocozelle di Napoli). Grows about 20 inches long, with a diameter of 3 or 4 inches. Skin smooth, dark green, marbled yellow or paler green. In Italy it is eaten when quite young.

## TOMATO

Tomato<br>Tomates<br>

Culture.-Sow in a hotbed in early spring, or the seed may be sown in shallow boxes and placed in a window, when one does not wish to have the trouble of making a hotbed. Transplant to the open ground when all danger of frost is past, setting the plants 3 to 4 feet apart each way. Fruit may be had several weeks earlier by sowing seed quite early and transplanting to
 small pots. Tomatoes that have not ripened at the end of the season may be taken from the vines and placed in empty coldframes, or wrapped in tissue paper and carefully packed in flat boxes, where a large proportion of them will ripen from time to time-frequently until Christmas.
1600 Acme. Medium size, smooth and good; purplish pink. Pkt. 5 cts., oz. 20 cts., 1/4lb. 65 cts., lb. $\$ 2.25$.
1601 Alpha Pink. See Novelties. Pkt. Io cts., oz. 40 cts., $1 / 4 \mathrm{lb}$. $\$ 1.25$.
1602 Atlantic Prize. Extra early; smooth, bright red, good size. Pkt. 5 cts., oz. 20 cts., $1 / 4 \mathrm{lb} .65 \mathrm{cts} ., \mathrm{lb} . \$ 2.25$.
1503 Beauty. Large, smooth, dark pinkish red; thick flesh; regular form. Pkt. 5 cts., oz. 20 cts., 1/4lb. 65 cts., lb. \$2.25. 1605 Buckeye State. Very large and productive, smooth, uniform, good quality. Pkt. 10 cts., oz. 30 cts., $1 / 4 \mathrm{lb} .85$ cts., lb. \$3.
1606 Chalk's Early Jewel. Fine large, solid, smooth, bright red; similar to Stone; early. Pkt. 5 cts., oz. $25 \mathrm{cts} ., 1 / 4 \mathrm{lb}$. 75 cts., lb. \$2.50.
1607 Coreless, Livingston's. See Novelties. Pkt. I 5 cts., oz. 60 cts., $1 / 4 \mathrm{lb}$. $\$ 2$.

1608 Crimson Cushion. Extra large, handsome, bright crimson $\begin{array}{lllllll}\text { \$0 } & 10 & \$ 0 & 30 & \$ 0 & 85 & \$ 3 \\ \text { 00 }\end{array}$


1613
1614 Earlibell. See Novelties. ..................................
$75 \quad 250$
We pay postage or express charges on all seeds bought by the packet, ounce or quarter pound

[^0]|  | Fordhook First. Smooth, solid; deep pink: medium size; early ....... Per |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1620 | Frogmore Selected. Medium size, bright deep red, smooth, very solid and fine-flavored. An excellent sort for forcing under glass. |  |  |  |  |  |
| 24 | Freedom. Early, regular and uniform; bright scarlet | 05 |  | 75 |  |  |
| 26 | Globe, Livingston's. Glossy rose-color, tinged with purple; very early smooth and of large size; very productive and a good keeper |  |  |  |  |  |
| 1628 | Golden Queen. Smooth, $\mathbf{0}$ golden yellow; about size and form of Beauty | 05 | 25 | 75 |  |  |
| 30 | Honor Bright. Rich, bright red; long keeper and fine shippin | 05 | 25 | 75 |  |  |
| 32 | Ignotum. Early for so large a sort, deep red, | 05 | 25 | 7 |  |  |
| 1634 | Imperial. Early; large, smooth, solid; fine quality; color of Bea |  |  |  |  |  |
| 1636 | June Pink. A very early market sort; smooth and of a bright pink color; medium size |  |  |  |  |  |
| 1637 | Lemon Blush, Thorburn's. Skin and flesh lemon, with a faint rose blush. |  |  | 65 |  |  |
| 1639 | Lorillard. Bright glossy red, |  | 30 | 85 |  |  |
| 16 | Magnitude. See |  |  |  |  |  |
| 1640 | Magnus. Purplish pink, firm flesh; large, unifor |  | 25 | 75 |  |  |
| 1641 | Matchless. Extra large, smooth and handsome; | 05 | 25 | 75 |  |  |
| 1642 | Mikado. Purplish red; large, smooth and sold |  | 25 | 75 |  |  |
| 1643 | Optimus. Bright red; smooth and solid; | 05 | 25 | 75 |  |  |
| 1644 | Paragon. Bright red; r |  |  |  |  |  |
|  | Perfection. Early, regular and produ | 05 | 20 | 65 |  |  |
| 1648 | Ponderosa. The |  |  |  |  |  |
| 1649 | Quarter-Century. Solid; bright scarlet; early | ${ }^{\circ}$ | 5 | 75 |  |  |
| 1652 | Royal Red. Intense bright red | O5 |  |  |  |  |
| 1653 | Ruby Early. Very early; large size; bright | ${ }_{5}$ | 25 |  |  |  |
|  | Stirling Castle. Small size; very solid for forcing under glass |  | 30 |  |  |  |
|  |  | ${ }^{5}$ |  |  |  |  |
| 1662 | Stone, Dwarf. In growth resembling Dwarf Champion, but with much larger fruits. Color bright scarlet, perfect shape, very solid and of the best quality |  | 5 | 75 |  |  |
|  | Sutton's Best-of-All. Highly |  |  | 25 |  |  |
|  | Terra-Cotta, Thorburn's. Distinct in color and flesh; pure terra-co |  |  | 75 |  |  |
| 1669 | Thorburn's Earliest. Smooth, uniform grower; immense yielder |  | 25 |  |  |  |
| 1672 | Trophy. Very solid; standard late; fine canner; dark |  | 20 |  |  |  |
| 1673 | Trucker's Favorite. Large and smooth and very regular in form. Purplish red; solid |  |  |  |  |  |

## SMALL-FRUITED VARIETIES

For pickling and preserving. Also invaluable for garnishing.

| 1674 | Red Cherry. Smail fruits, used for pickles; very handsome . . . . . . . . . . . $0_{5}$ | 25 | 75 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1676 | Red Currant. Very small and handsome; for preserves . . . . . . . . . . . . . 05 | 25 | 75 |  | 50 |
| 1678 | Red Peach. Resembling a peach; for preserves, pickles and exhibition ... 05 | 25 | 75 |  | 50 |
| 1679 | Red Pear. Fruit handsome and solid; fine for preserves . . . . . . . . . . . . . $0_{5}$ | 25 | 75 |  | 50 |
| 1680 | Red Plum. Bright red, round, regular; for pickles . . . . . . . . . . . . . . . . . 05 | 25 | 75 |  | 50 |
| 1681 | Strawberry (Winter Cherry, or Husk Tomato). Makes fine sauce ....... Io | 30 | 85 |  |  |
| 1682 | Yellow Cherry. For pickles and preserves . . . . . . . . . . . . . . . . . . . . . . 05 | 25 | 75 |  |  |
| 1683 | Yellow Peach. Beautiful clear yellow; perfectly resembles a peach ...... $0_{5}$ | 25 | 75 |  |  |
| 1684 | Yellow Pear. Handsome, yellow, pear-shaped fruits . . . . . . . . . . . . . . . 05 | 25 | 75 |  |  |
| 1685 | Yellow Plum. Round and regular; bright yellow; used for pickles...... . 05 |  |  |  |  |

## SKIRRET <br> Chervis Зuťerwurgel

Culture.-Sow in drills $1 / 2$ inch deep, a foot apart; thin out to 8 inches in the row; keep down the weeds. Take up the roots before winter, and store in sand or earth. It is a plump, fleshy root, containing a quantity of sugar and is eaten like scorzonera or salsify.

Per pkt. Oz. 1/41b. Lb
1695 Skirret
. \$0 10 \$0 30 \$0 $85 \$ 300$
WITLOOF. See Chicory, page 21.
We pay postage and express charges on all seeds bought by the packet, ounce or quarter pound

[^1]
## J. M. THORBURN \& CO., 33 BARCLAY ST., NEW YORK

## TURNIP

Navet
Nabo
תübe
CUlTURE.-For early Turnips, sow as soon as the ground opens in spring. Nos. 1766 to 1776 should be sown from any time in July to first of August; but the other kinds, for winter use, may be sown from the middle of July to the end of August. Turnips are generally sown broadcast, but much larger crops are obtained (particularly of the Rutabagas) by cultivating in drills 18 inches apart, and thinning to 6 inches in the drill. Sow in drills, one pound to the acre; broadcast, two to

## WHITE VARIETIES



1699 Cow Horn. Long, white, in shape resembling a cow's horn. Pkt. 5 cts., oz. io cts., 1/4 lb. 20 cts., lb. 50 c .
1700 Early Dutch. Rather flat; good white early sort. Pkt. 5 cts., oz. 10 cts., $1 / 4 \mathrm{lb}$. 20 cts., lb. 50 cts.
1701 Early Snowball. Small, and of rapid growth; pure white. Pkt. 5 cts., oz. Io cts., $1 / 4 \mathrm{lb} .20 \mathrm{cts}$., 1 lb . 50 c .
1702 German Teltow. Smallest of all; early; distinct flavor best for pickling. Pkt. 5 cts., oz. 10 cts., $1 / 4 \mathrm{lb}$. 20 cts., 1 b . 60 cts .
1705 Globe-shaped Red-Top. A standard sort in the New York market. Pkt. 5 cts., oz. 10 cts., $1 / 4 \mathrm{lb} .20 \mathrm{cts}$., lb. 50 cts .
1706 Globe,Pomeranian White. Good either for table or stock. Pkt. 5 cts., oz. Io cts., $1 / 4 \mathrm{lb} .20 \mathrm{cts} ., \mathrm{lb} .40 \mathrm{c}$.

## 1707 Half-Long White. For

 frames or outdoors; tender when young; very fine. Pkt. 5 cts., oz. Io cts., 1/4b. 25 cts, lb. 75 cts.
## 1708 Jersey Lily. (White Model) Snow-white, globular

Per pkt. Oz. $\quad$ y/ 1 lb . Lb.
1712 Milan, Early Purple-Crown. Earliest of all; white, with purple top..... 05
1714 Milan, Early Pure White. Very handsome; pure white; as early as above. o5
1716 Munich, Purple-Top. One of the earliest ................................... o5
1717 Norfolk White. Globular; late; solid.......................................... ${ }^{5}$
1718 Stone, Thorburn Grey. Solid and sweet; good keeper ..................... os
1719 Strap-leaf, White. A good early, white, flat sort.......................... 05
${ }_{1720}$ Strap-Leaf Red-Top. The popular fall, flat sort $\ldots \ldots$..................... $0_{5}$
172 I Tankard Red. A good keeper; long shape................................... 05
1722 " White. Similar to above, except as to color ..................... o $0_{5}$
1724 White Egg. Oval, handsome and sweet ..................................... $0_{5}$
1725 White French, or Rock. Very productive and a fine keeper ............. o5
05
05

| 10 | 25 | 70 |
| :--- | :--- | :--- |
| 10 | 20 | 60 |
| 10 | 25 | 70 |
| 10 | 20 | 50 |
| 10 | 20 | 40 |
| 10 | 20 | 50 |
| 10 | 20 | 45 |
| 10 | 20 | 40 |
| 10 | 20 | 50 |
| 10 | 20 | 50 |
| 10 | 20 | 50 |
| 10 | 20 | 50 |

## YELLOW VARIETIES

| 1726 | Aberdeen Yellow. Hardy, productive, and a good keeper | 05 | 10 | 20 | 40 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1727 | Finland, Yellow. Early, and of fine flavor; small, flat; distinct | 05 | 10 | 20 | 60 |
| 1730 | Globe, Amber. Fine, sweet, light yellow sort | 05 | o | 0 | 50 |
| 1732 | Golden Ball. Very handsome; keeps fairly well | 05 | 10 | 20 | 50 |
| 1733 | Montmagny. Yellow; flat; purple top | 05 | 10 | - | 50 |
| 1734 | Stone, Thorburn Yellow. Fine, hard winter sort | ${ }^{5}$ | 10 | 20 | 50 |
| 1736 | Tankard Yellow. Long shape; good keeper | 05 | 10 | 20 | 40 |
| 1738 | Seven Top. Tops used for greens | 05 | 10 | 20 | 45 |
| RUTABAGA |  |  |  |  |  |
| 1766 | Thorburn Family. A fine strain for family use; finest quality | 5 | 10 |  | \% |
| 1768 | Thorburn Purple-Top Improved. (L. I. Strain) | 05 | 10 | 20 | 50 |
| 1770 | Champion Purple-Top. Very large | 05 | 10 | 20 | 40 |
| 1774 | White Flesh. Large and productive | ${ }^{0} 5$ | 10 | 20 | 45 |
| 1776 | Laing's | 05 | 10 | 20 | 50 |

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PEPPERMINT


LAVENDER


FENNEL


SAGE


SUMMER SAVORY

## Seeds of Pot, Sweet and Medicinal Herbs

Agrimony. For medicinal purposes
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Anise. Seeds aromatic and carminative.
Arnica. Tincture of Arnica is made from it
Balm. For culinary purposes.
Basil, Sweet. Culinary herb used for flavoring soups, etc. Dwarf or Bush. Culinary herb
Belladonna. Is used in medicine
Bene. The leaves used or dysentery
Borage. Leaves used as a salad
Caraway. Is used in flavoring liquors and bread
Catnip. Has medicinal qualities
Chamomile
Coriander. Seeds aromatic
Cumin.
Dill. Seeds used for flavoring vinegar Mammoth. Much larger than above
Elecampane. Has tonic and expectorant qualities
Fennel, Sweet. Seeds aromatic; for flavoring Florence. In flavor resembling celery
Foxglove, Purple. Has medicinal qualities
Fumitory. A medicinal herb.
alities; poisonous
Henbane. Has medicinal qualities; poisonous
Horehound. Has medicinal qualities
Hyssop. Has medicinal qualities
Lavender, True. For oil and distilled water
Lavender. Possessing qualities as above in a lesser degree
Lovage. Has medicinal qualities
Marshmallow. Has medicinal qualities
Marigold, Pot. Single. For medicinal purposes.
Marjoram, Sweet. Is used in seasoning
Pot. Is used in seasoning .
ed Mint $\qquad$ 200 seeds, 25 cts.
Mint. Curled Mint .200 seeds, 25 cts .20
Pennyroyal. Has medicinal qualities
Rosemary. Yields an aromatic oil and water
Rue. Said to have medicinal qualities $\qquad$
Saffron. Is used in medicine, and also in dyeing
Sage, Common. A culinary herb; also used in medicine

> Red. Is used as a culinary herb; also in medicine

Purple. Is used as a culinary herb; also in medicine
Savory, Summer. Is used as a culinary herb
Winter. Is used as a culinary herb
Tansy. Generally used in bitters
Tarragon
spring...................... 35 cts, each, $\$ 3$.
Thyme, Broad-leaved English. Is úsed as a seasoning . . . . . . . Thymus vulgaris .....
Woodruff (Waldmeister, or Maitrank)
Wormwood. Has medicinal qualities.

Thymus vulgaris ....... 05
Per pkt. Oz.
\$o 10 \$0 75

| Agrimonia officinalis... \$0 ı0 |  |  |
| :---: | :---: | :---: |
| Archangelica officinalis. . 05 | 10 | \$1 00 |
| Pimpinella anisum . . . . . $0_{5}$ | 10 | 75 |
| Arnica montana. . . . . . . 10 | 100 |  |
| Melissa officinalis . . . . . 05 | 25 | 5 |
| Ocymum basilicum ... . . 05 | 10 | oo |
| Ocymum minimum... . . . 05 | 15 | 50 |
| Atropa Belladonna . . . . 10 | 50 |  |
| Sesamum orientale . . . . 05 | 10 | 5 |
| Borago officinalis. . . . . . 05 | Io |  |
| Carum Carui . . . . . . . . . 05 | 10 | 50 |
| Nepeta cataria | 50 | 5 |
| Matricaria Chamomilla . ıo | 90 |  |
| Coriandrum sativum . . . $0_{5}$ | 10 | 50 |
| . Cuminum Cyminum. . . 05 | 10 | oo |
| Anethum graveolens ... 05 | 10 |  |
| Anethum graveolens ... 05 | 10 | I 00 |
| Inula Helenium . . . . . . . 05 | 25 | 25 |
| Anethum Fœniculum . . . 05 | 10 | \% |
| Anethum Fœniculum . . . 05 | 15 |  |
| Digitalis purpurea. . . . . 05 | 15 | I 25 |
| Fumaria officinalis .... ${ }^{\text {a }}$ | I 50 |  |
| Conium maculatum . . . 10 | 75 |  |
| .Hyoscyamus niger. . . . . $0_{5}$ | 15 | 25 |
| Marrubium vulgare . . . 05 | 25 |  |
| . Hyssopus officinalis. . . . 05 | 30. |  |
| Lavandula vera . . . . . . . 10 | 35 | 350 |
| .Lavandula spica..... . . 05 | 20 | 00 |
| Levisticum officinale. . . . 10 | 75 |  |
| Althæa officinalis...... . $0_{5}$ | 25 |  |
| Calendula officinalis . . . 05 | 10 | 80 |
| Origanum Marjorana . . 05 | 10 | O |
| Origanum Onites ...... 10 | 60 | 600 |

Mentha crispa.
Mentha piperita


05
05
05
25
Asperula odorata
30
50
Artemisia Absinthium .. 0520

250
300
200

## TOBACCO SEEDS

Brazilian American. Makes excellent cigars, and is a delightfully aromatic pipe-smoking tobacco. Per oz., 40 cts.; per lb., $\$ 4$.
Climax. A cross between Burley and Sterling; fine bright variety. Per oz., 30 cts.; per lb., $\$ 3$.
Connecticut Seed-Leaf. The popular sort, used for cigar wrappers. Per oz., 25 cts.; per lb., $\$ 2.50$.
Conqueror. A superb bright yellow; vigorous grower. Ripens early and is easily cured to the brightest color. Per oz., 30 cts .; per $1 \mathrm{l} ., \$ 3$.
Havana. Seed gathered for us from the celebrated plantations of the "Vuelto de Abajo." Per oz., 45 cts.; per lb., $\$ 4.50$.
Honduras. A new mahogany variety, producing the very highest quality of tobacco of this type. A healthy and vigorous grower. Per oz., 30 cts.; per lb., $\$ 3$.
Kentucky Yellow. Per oz., 25 cts.; per lb., $\$ 2.50$.
Oronoka White Stem. From Yellow Oronoka, which it resembles. Per oz., 25 cts.; per lb., $\$ 2.50$.
Pennsyivania Seed-Leaf. A first-class standard cigar variety. Per oz., 25 cts.; per lb., $\$ 2.50$.
Persian Rose. Fine; may be relied upon to make fine cigars. Per oz., 30 cts.; per lb., $\$ 3$.

Pryor, Blue. The genuine James River favorite. Per oz., 25 cts.; per lb., \$2.50.
Pryor, Yellow. Preferred by many for brights; succeeds where the other yellow sorts fail. Per oz., 30 cts.; per lb., $\$ 3$.
Sterling. The newest and the brightest of the yellow type, and the earliest to ripen. Per oz., 25 c .; per lb., $\$ 2.50$.
Sumatra. The finest of all for cigar wrappers; specially grown for us in Connecticut. Per oz., 50 cts.; per lb., $\$ 5$.
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Yellow Mammoth. Large yielder. Per oz., 25 c .; per lb., $\$ 2.50$.
Zimmer's Spanish. One of the most popular and extensively grown cigar varieties. Very early; finest quality. Per oz., 40 cts.; per lb., $\$ 4$.

## BIRD SEEDS, ETC. <br> PRICES VARIABLE

| Canary, best Sicily | Per lb. ioo lbs. \$o $10 \quad \$ 700$ | Rape, English | Per lb. ioo lbs. \$0 10 \$8 00 |
| :---: | :---: | :---: | :---: |
| Mixed Canary Seed | $10 \quad 700$ | German | 10750 |
| Hemp | $10 \quad 600$ | Rough Rice | 10800 |
| Lettuce Seed | 15 10 00 | Vetches for Pigeons. | 08500 |
| Maw, Blue Poppy |  | Gravel for Cages. per qt., 6c. | 3.50 |
| Millet | . 10500 | Cuttle-Fish Bone | 30 |
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| Red Siberian | 10550 | Teasels. | .. 25 |

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We shall have all the standard sorts at their proper seasons.

## ESCULENT PLANTS AND ROOTS



## MATS FOR COVERING SASHES

Made of jute, stitched through; hemmed with canvas and thickly padded; size 76 inches by 76 inches. One mat covers two sashes.

Each Doz.
No. 1. Both sides jute . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$1 50 \$16 oo
No. 2. One side jute, the other water-proof duck.................................................. I 8o 21 oo
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## About Lawns and Lawn Grass Seed

## FORMATION OF LAWNS FROM SEED

The ground should be thoroughly drained and well prepared. The soil ought not to be too rich, as a rapid growth is not wanted in the grasses of a lawn; but the surface should be as much alike in quality as possible and thoroughly pulverized. After sowing, the ground should be rolled in order to press the seed firmly into the soil. The proper time to sow grass seed depends, of course, upon the latitude. In the central and eastern states from March i5 to the middle of May is the best time, but in favorable seasons the sowing may be done up to July r. Seed may also be sown in the fall, provided it is done early enough to secure a good, strong growth before winter sets in. The sowing should be done when the ground is moist, or before an expected rain, and a subsequent rolling is always advisable. As to weeds in newly made lawns, it may not be generally known, but many weed seeds actually lie dormant in the ground for six or seven years and will germinate and make their appearance when the soil is turned up.

Rolling. - As soon as the frost is out of the ground in the spring, the land should be gone over with a heavy roller. Winter frosts loosen the soil, and rolling is necessary to compress it again. If grass seed is to be sown, this should be done first and the rolling immediately afterward. Roll frequently.

Mowing.-All turf-forming grasses are improved, both in vigor of root-growth and in fineness of texture, by frequent mowings. It is impossible to say just how often the grass should be mown, as that depends upon the rate at which it grows. Too close cutting should be guarded against, however, especially during the hot summer months, when the roots require some top-growth to protect them from the burning sun. A good top-growth is also necessary to protect the roots from severe winter frosts.

To Grass a Bank or Terrace.-For each square rod, take a pound of lawn grass seed and mix it thoroughly with 6 cubic feet of good, dry garden loam ; place in a tub, and add liquid manure, diluted with about two-thirds of water, so as to bring the whole to the consistency of mortar. The slope must be made perfectly smooth, and then well watered, after which the paste should be applied.

It is a good plan to sow on good land, in any out-of-the-way place, strips for sod to be used for patching poor parts of the lawn, or for grass borders, etc. The best mixture of seed for this purpose is Agrostis stolonifera, Cynosurus cristatus and Poa pratensis.

[^3]
## Lawn Grass Seed Mixtures

## THE THORBURN LAWN GRASS

Practically all the finest lawns in America were produced from this mixture. It is composed exclusively of permanent grasses that make a finer and thicker turf the older they become, and yet give a rich green sward in three or four weeks from the time of sowing. The ordinary Central Park Lawn Grass Seed as usually sold is not to be compared with this superior mixture. It should be sown at the rate of 4 to 5 bushels to the acre ( 15 pounds to the bushel). Per qt., 25 cts.; 2 qts., 40 cts.; 1/2pk., 65 cts.; pk., \$1; bus., $\$ 3.50$.

## THORBURN'S LAWN-RESTORING GRASS SEED

A mixture of grasses peculiarly suited to take firm hold and grow quickly on hard, worn-out, or burned spots. The best time to resow them is very early in spring, but seed may also be sown in the fall from first of September to first of October. Some Lawn-restoring Grass Seed should also be sown before every summer rain on thin places. Per qt., 30 cts.; 2 qts., 50 cts.; $1 / 2$ pk., 85 cts.; pk., $\$$ I.50; bushel of $2+$ pounds, $\$ 5.50$.

## THORBURN'S SPECIAL LAWN GRASS MIXTURE

This extra-choice mixture contains a large proportion of the finer and more expensive species,
such as Rhode Island Bent, Crested Dog's-Tail, Creeping Bent, in extra-heavy samples, bringing the weight up to 20 pounds per bushel, and producing a turf of the closest and finest texture possible. Price per qt., $30 \mathrm{cts} .: 2$ qts. $50 \mathrm{cts} . ; 1 / 2 \mathrm{pk} ., 85 \mathrm{cts} . ;$ pk., $\$ \mathrm{I} .50$; bus., of 20 lbs ., $\$ 5$.

## THORBURN'S LAWN GRASS FOR THE SOUTH

A mixture of grasses that stand extremes of heat and drought well and that are therefore peculiarly adapted for southern lawns. Per qt., 35 cts.; 2 qts., 60 cts.: I/2pk., SI : pk., SI.75; bus. of 20 lbs ., $\mathrm{S}_{6.50}$.

## THORBURN'S GRASS MIXTURE FOR SHADY SPOTS ON LAWNS

A mixture of grasses that thrive in shaded situations, under trees, or close to walls where there is little sun. Per qt., 35 cts.: 2 qts., 60 cts.: I Ípk., \$i; pk., \$1.75; bus. of 24 lbs., \$6.50.

## THORBURN'S SPECIAL LAWN GRASS MIXTURE FOR THE SEASHORE

A mixture of fine grasses peculiarly suited to seaside lawns. Per qt., 30 cts.; 2 qts., 50 cts.; $1 / 2 \mathrm{pk}$., 85 cts.; pk., $\$ \mathrm{I} .50$; bus. of $20 \mathrm{lbs} ., \$ 5$.

## Also Permanent Grass Seed for Golf-Links, Tennis-Courts, PoloGrounds, Etc.

We have devoted much attention to the seeding and preservation of golf-links, tennis-courts and pulo-grounds, and offer the following mixtures, which have been used on most of the finest links, etc., in the country with very satisfactory results.

## FAIR-GREEN MIXTURE

For the grounds in general. Per bushel of 20 pounds, $\$ 3.25$.

## TENNIS-COURT MIXTURE

A mixture of extra-fine grasses peculiarly adapted for tennis courts. This mixture will make a firm, green and lasting turf of the finest texture, that will improve with tramping. Per qt., 35 cts.; 2 qts., 60 cts.; 1/2pk., \$1; pk., \$1.75; bus. of 24 lbs., \$7.

## PUTTING-GREEN MIXTURE

A mixture of extra-fine grasses that will make a close, firm, green and lasting turf, which will improve with tramping. Per qt., 35 cts.; 2 qts., 60 cts.; $1 / 2$ pk., $\$ \mathrm{I}$.; pk., $\$ \mathrm{I} .75$, bus. of 24 lbs. $\$ 6.50$.

## POLO-GROUNDS MIXTURE

A mixture of fine-leaved and deep-rooting grasses. forming a strong and lasting turf that will stand hard usage. Per bushel of 20 pounds, $\$ 3.25$

## Grass Mixture for Railroad Banks, Etc.

A mixture of grasses with long, interlacing, matting roots that will bind steep embankments, gravelly. or sandy slopes, etc., preventing washouts by rainstorms and covering with permanently green turf. Per qt., 30 cts.; 2 qts. 50 cts.; $1 / 2 \mathrm{pk} ., 80 \mathrm{cts} . ;$ pk., $\$ \mathrm{I} .25$; bus. of 22 pounds, $\$ 4.50$.

We can also make other mixtures for special purposes ad libitum
The following are a few Celebrated Lawns and Golf-Links which were produced mainly from Thorburn's Seeds. We have not space to mention hundreds of others

St. Andrews Golf Club
Wee Burn Golf Club Apawamis Golf Club
Naussau Country Club
Hackensack Golf Club
Nashville Golf and Country Club
Essex County Country Club

Chicago Golf Club
Philadelphia Country Club
Baltusrol Golf Club
Upper Montclair Country Club
Calumet Country Club
Rockland County Country Club.
Geo. W. Vanderbilt's Biltmore Estate

## Allegheny Country Club

Shinnecock Hills Golf Club
Montclair Golf Club
Englewood Golf Club
Oakmont Country Club
Buffalo Country Club
Woodlawn Cemetery.

# Grass Mixtures for Meadows and Pastures 

For about a hundred years our house has made a specialty of grasses. We were probably the first to introduce to this country, for commercial distribution, the many valuable natural and cultivated foreign species that now take such an important part in our agricultural economy. The formation of permanent pastures and meadows has for many years been a subject of careful study with us, and the following formulæ for seeding grass-lands have received universal recognition.

It is a well-ascertained fact that a thicker and more prolonged growth is produced by a mixture of many sorts of grasses than by only one or two. For every different kind and condition of soil there are grasses that are especially suitable. Some sorts do best on high ground and in dry weather ; others prefer plenty of moisture. Some mature so early, and others so late, that from the beginning of spring until winter sets in there is no time when one species or another is not at its best. Grass seed may be sown either early in spring or in fall from first of September to middle of October in this latitude. The quantities given are the minimum, and may often be increased to advantage.

## MEADOW MIXTURES FOR ONE ACRE

No. 1. On Good Land, neither
Too dry nor Too Wet
5 lbs. Red Top.
I
$1 / 2$ " Meadow Foxtail.
$40 \mathrm{lbs} . \$ 3$ per bushel of 20 lbs .
Sow 2 bushels to the acre

No. 2. On High and Dry Land 4 lbs. Red Top.
4 " Tall Meadow Oat Grass.
" Meadow Brorne Grass.
1/2 " Crested Dog's-tail.
5 " Orchard Grass.
" Hard Fescue.
" Sheep's Fescue.
" Meadow Soft Grass.
" Timothy.
" Rough-stalk Meadow.
" Red Clover.
1/2 " White Clover.
40 lbs . $\$ 3.50$ per bushel of 20 lbs .
Sow 2 bushels to the acre

No. 3. On Wet Late Land 6 lbs. Red Top.
2½" Creeping Bent Grass.
6 " Orchard Grass.
2 " Tall Meadow Oat Grass.
3 " Meadow Fescue.
I " Tall Fescue.
I " Meadow Soft Grass.
7 " Perennial Rye Grass.
Io " Timothy.
r " Red Clover.
1/2" Alsike Clover,
40 lbs . $\$ 3$ per bushel of 20 lbs .
Sow 2 bushels to the acre

## PASTURE MIXTURES FOR ONE ACRE

No. 4. On Good Land, neither Too Dry nor Too Wet
lbs. Tall Meadow Oat Grass.
" Red Top.
$1 / 2$ " Perennial Sweet Vernal.
" Orchard Grass.
" Sheep's Fescue.
"Hard Fescue.
" Meadow Soft Grass.
" Perennial Rye Grass.
" Meadow Foxtail.
" Kentucky Blue Grass.
" Timothy.
" Yellow Trefoil.
" Red Clover.
" White Clover.
$40 \mathrm{lbs} . \$ 3.50$ per bushel of 20 lbs . Sow a bushels to the acre

No. 5. On Dry Land
3 lbs. Creeping Bent Grass
$41 / 2$ " Tall Meadow Oat Grass.
I " Meadow Brome Grass.
4 " Orchard Grass.
2 " Hard Fescue.
6 " Sheep's Fescue.
$1 / 2$ " Perennial Sweet Vernal
7 " Timothy.
6 " Perennial Rye Grass.
4 " Sainfoin.
I " Red Clover.
I " White Clover.
$40 \mathrm{lbs} . \$ 4$ per bushel of 20 lbs .
Sow a bushe s to the acre

No. 6. On Wet Land
6 lbs. Red Top.
5 " Orchard Grass.
2 " Meadow Fescue.
r "Tall Fescue.
2 " Meadow Soft Grass.
8 " Perennial Rye Grass.
I " Meadow Foxtail.
8 " Timothy.
I " Rough-stalk Meadow Grass.
4 " Kentucky Blue Grass.
I " Alsike Clover.
I " White Clover.
40 lbs. $\$ 3.50$ per bushel of 20 lbs
Sow zoushels to the acre

[^4]

## Grass Seeds

We desire to call particular attention to the fact that Grass Seeds are sold in the trade by sample, and each sort is divided into three or four grades of quality, according to purity, germination and weight. The price of the best grade is often double that of the ordinary. The Grass Seeds here offered by us are in every case the VERY HIGHest Grade. Not less than one pound of any one sort sold.

25 lbs . and up of any one sort at the 100 lb . rate
The prices of some varieties may change as the season advances. The weight per bushel is average. actual weight, except in case of some sorts that are always sold by standard arbitrary weights.

AGROSTIS CANINA (Rhode Island Bent Grass). Resembles Red Top (A. vulgaris, described below), but is of dwarfer habit, with shorter and narrower leaves. It makes a beautiful, close, fine turf, and is one of the very best grasses for lawns. It adapts itself to almost any soil, rich and moist, or dry, sandy and sterile. It is a native of Europe, but has been cultivated in our eastern states for many years. Of late years we have been unable to obtain true and pure seed of it here, and we now import it from Europe, where it has been more carefully cultivated. 50 lbs . of seed to the acre is recommended for lawns. Height, I to 2 feet. ( 16 lbs. to the bushel.) Per lb., 32 cts.; Io lbs. $\$ 3$; Ioo lbs., $\$ 28$.
AGROSTIS STOLONIFERA (Creeping Bent, or Fiorin). The distinctive feature of this species is, as the name implies, its compact, creeping, rooting stems. It is of rapid growth and spreading habit, and the stoloniferous roots form a strong, enduring turf, that is positively improved by constant trampling. Being of fine texture, it is most valuable for lawns and putting greens. If sown alone, 50 lbs . to the acre should be used. (i8 lbs. to the bushel.) Per lb., 32 cts.; io lbs., $\$ 3$; Ioo lbs., \$28.
AGROSTIS VULGARIS (Red Top; Herd's Grass). A very hardy native perennial grass, succeeding best on moist land. It accommodates itself to a variety of soils, however, even to quite dry situations and stands our hot climate admirably. It is, perhaps, the most permanent grass we have, and it enters largely into the composition of our best natural pastures. It remains green for the greater part of the year, and its long, trailing stems form a very close, matting turf, that is not affected by trampling. The seed, as usually sold, weighs 14 to 20 lbs . to the bushel, natural in the chaff, and 4 bushels of it would be required to sow an acre. Per lb., 17 cts.; io lbs., $\$ \mathrm{I} .50$; 100 lbs., \$12. (The absolutely clean or "fancy", seed offered weighs about 36 lbs. to the measured bushel, and I bushel or less of it is sufficient to sow an acre.)

Fancy Heavy Red-top Grass. Absolutely clean and free from chaff. About 25 lbs . to the acre. ( 36 lbs . to the bushel.) Per lb., $25 \mathrm{cts} . ;$ io lbs., \$2.20; 100 lbs ., \$19.
AIRA CESPITOSA (Hassock Grass). A coarse grass, preferring stiff and marshy bottoms, and thriving in moist and shady woodlands. In England, door-mats are formed of it by the cottagers. 30 lbs . to the acre. ( 18 lbs . to the bushel.) Per lb., 25 cts.; Io lbs., $\$ 2.25$; Ioo lbs., $\$ 20$.
AIRA FLEXUOSA(Wood Hair Grass). Delights in high and rocky hills; is of little agricultural value except for sheep pasture. (12 lbs. to the bushel.) 30 lbs. to the acre. Per lb., 20 cts .; 10 lbs ., $\$ \mathrm{I} .85$; ioo lbs., \$16.
ALOPEGURUS PRATENSIS (Meadow Foxtail). One of the best permanent pasture grasses for rich, moist soil. Its chief characteristics are its extreme earliness and its faculty of standing high summer heats without burning. Although it prefers moist, low grounds, it accepts drier situations, and makes an earlier spring verdure than any other variety. It should be sown only in connection with other grasses, 3 to 4 lbs. to the acre; if sown alone, 25 lbs . to the acre. Height, 2 to 3 feet. (9 lbs. to the bushel. ) Per lb., 45 cts.; 10 lbs., $\$ 4.35$; ioo lbs., $\$ 40$.
AMMOPHILA ARUNDINACEA (Beach Grass). Valuable on the sandy seashore, canal and railway banks, etc. Its strong, creeping, matting roots bind the drifting sand into natural enbankments against the action of wind and waves. This grass is usually propagated by transplanting in the fall. Where it is necessary to use seed, it should be sown in spring, and ground covered with brush to hold the seed in place until it has taken firm hold. Height, 2 to 3 feet. ( 15 lbs . to the bushel.) Per lb., 50 cts.; io lbs., $\$ 4.50$; 100 lbs., \$42.
ANTHOXANTHUM ODORATUM (True Perennial Sweet Vernal Grass). For a mixture with pasture grasses, it is valuable on account of its vernal growth, and also for continuing to throw up root

Anthoxanthum Odoratum, continued
foliage until late in the autumn. For meadows, its chief merits is the fragrant odor which the leaves emit when partially dried, thus sweetening hay. It is a vegetable condiment, rather than a grass of much nutritive value. From 2 to 3 lbs . to the acre, when mixed with other grasses. Per lb., 80 cts.; io lbs., \$7.50.

## ANTHOXANTHUM ODORATUM PUELLI

 (Annual Sweet Vernal Grass). Much smaller than the perennial, and of much less value, lasting one year only. 20 to 25 lbs . to the acre. (II lbs. to the bushel.) Per lb., 20 cts.; IO lbs., \$I.75; IOO lbs., \$I 6.ARRHENATHERUM AVENACEUM (Tall Meadow Oat Grass). See Avena elatior.
AVENA ELATIOR (Tall Meadow Oat Grass). Most valuable for pasture on account of its early and luxuriant growth; it produces an abundant supply of foliage, which is relished by cattle early and late. For hay it may be cut twice a year, and for green soiling it may be cut four or five times in favorable seasons. It is very hardy, and withstands extreme drought and heat and cold. It is very valuable for our southern states, where it is extensively cultivated for winter grazing and for hay. Height, 2 to 4 feet. 50 lbs . to the acre ( 13 lbs. to the bushel.) Per lb., 29 cts .; 10 lbs . \$2.50; Ioo lbs., \$20.
AVENA FLAVESGENS (Yellow Oat Grass). Will not thrive well when sown alone, but with other species it becomes desirable for dry meadows and pastures. About 25 lbs . to the acre. Our seed is true. Per lb., \$1.

## BEACH GRASS. See Ammophila arundinacea.

BERMUDA GRASS (Cynodon dactylon). A most valuable grass for our southern states, both for pasture and lawns. It is of dwarf habit, with long, creeping stems rooting at the joints and covering the ground with a matting of fine turf, which no amount of trampling will impair. It is also useful for binding drifting sand and for steep embankments subject to wash. When established, it is difficult to eradicate, and is therefore unsuitable for temporary pastures. It requires heat and moisture to start it. As it cannot endure frost, it is of no value north of Virginia. It thrives in the poorest and sandiest soil, and resists extreme drought and intense tropical heat. It should be sown at the rate of 15 lbs . to the acre. ( 36 lbs . to the bushel.) Per lb., 45 cts.; io lbs. and over, 40 cts . per lb.; 100 lbs ., $\$ 38$.
BLUE GRASS, CANADA. See Poa compressa.

## ENGLISH. See Festuca pratensis.

## KENTUCKY. See Poa pratensis.

BROMUS ARVENSIS (Field Brome Grass). An annual, growing about 3 feet high. It makes a fair hay if cut in flower. Per lb., 25 cts.; 10 lbs., $\$ 2.25$; 100 lbs., $\$ 20$.
BROMUS INERMIS (Awnless, or Smooth Brome Grass). An erect perennial, 3 to 5 feet high, native of Hungary, where it is considered one of the best hay grasses, yielding a good return in the arid and silicious soil. The nutritive quality of its hay, however, is much inferior to that of our standard native sorts, so that we should recommend it only for dry, arid soils, where the better and more delicate grasses would not grow. It is strongly stoloniferous, its creeping rootstocks spreading rapidly under ground and giving out new plants. It is on this account undesirable

Bromus inermis, continued
for temporory meadows, being difficult to eradicate when once established. Sow 35 to 40 lbs. to the acre. ( 12 lbs to the bushel.) Per lb., $20 \mathrm{cts} . ;$ io lbs., \$1.75; ioo lbs., \$14.
BROMUS MOLLIS (Soft Chess). This annual grass is so called because its stems and leaves are downy and soft to the touch. In good soil it rapidly produces an abundant forage, but of poor quality, and little relished by cattle. It can be recommended only for poor, sandy soil, where grasses of better quality would not grow. 30 lbs . to the acre. (16 lbs. to the bushel.) Per lb., 28 cts.; io lbs., \$2.50; 100 lbs., \$20.
BROMUS PRATENSIS (Meadow Brome Grass). A hardy perennial, 2 to $31 / 2$ feet high, much used in mixtures for meadows, both for mowing and pasture. It is not recommended to be sown alone except in poor soil, on dry and stony hillsides, where better grasses will not grow. It withstands extreme cold and drought, and if cut before flowering it makes a good hay. If left to grow older it becomes very tough. (i6 lbs. to the bushel.) 30 lbs . to the acre. Per lb., 30 cts .; ı lbs., \$2.50; 100 lbs., \$22.
BROMUS SCHRADERI (Rescue Grass). In good, rich soil, several crops have been cut in a season. It cures into hay of fair nutritive quality, but for pasture, or for cutting and feeding green, it is more suitable. It is most valuable for the South and for the tropics. Height, 1 to 2 feet. 30 lbs . to the acre. ( 14 lbs . to the bushel.) Per lb., 22 cts.; io lbs., \$1.75; 100 lbs., \$15.
CALAMAGROSTIS ARENARIA. See Ammophila arundinacea.
CYNOSURUS CRISTATUS (Crested Dog's-tail). True. A stoloniferous perennial, forming a smooth, compact and lasting turf. It thrives best on rich, moist land, but it can accommodate itself to almost any soil. Its roots penetrate deeply into the ground, which enables it to stand severe droughts. It makes a good bottom grass and is therefore valuable in mixtures for lawns and putting greens. It thrives well in the shade. The color is the same as that of the Kentucky Blue Grass, and it is, therefore, excellent in mixture with that sort. If sown alone, 30 pounds to the acre is none too much, but it is recommended only in mixture with other sorts. Height, I to 2 feet. ( 30 lbs . to the bushel.) Per lb., 45 cts .; ro lbs., $\$ 4$; roo lbs., $\$ 35$.
DACTYLIS GLOMERATA (Orchard Grass; Cocksfoot). One of the grasses most employed in permanent meadows, either for pasture or for mowing. It is very hardy and succeeds well anywhere in the United States. It is very productive and makes excellent hay. If cut before it flowers it is less hard and the pith of the stem is soft and sweet. It blossoms about the same time as Red Clover, and is therefore desirable in mixture with that plant. Stock of all kinds are very fond of it, either dry or green, and it endures constant cropping better than any other grass. After being mown it grows up quickly and yields a heavier aftermath than any other variety. It can stand considerable shade, and is recommended as a pasture grass for woodlands. Its tendency to grow in tussocks is diminished if it is sown with other grasses, and also by heavy rolling in the spring. But it is quite unsuitable for lawns. Height, 3 feet. (I 4 lbs. to the bushel.) Sow 3 or 4 bushels to the acre. Per lb., 27 cts.; 10 lbs., \$2.50; 100 lbs ., $\$ 22$.

## GRASS SEEDS, continued

DOG'S TAIL. See Cynosurus cristatus.
ELYMUS ARENARIUS (Lime Grass). Valuable on the sandy seashore, canal and railroad banks, etc. It tends, with its tough, wide-spreading and thickly matting roots, to form natural and permanent embankments, thus serving to prevent the drifting of the sand and to protect an exposed shore from wind and waves. It is of no agricultural value. ( 12 lbs . to the bushel.) Per lb., 60 cts.; io lbs., $\$ 5.50$; 100 lbs ., $\$ 50$.
FESTUCA DURIUSCULA (Hard Fescue). This is a variety of $F$. ovina, dwarfer and less vigorous in growth, but possessing all the other valuable characteristics of that variety. It is emphatically a grass for dry lands, doing well on sandy and shallow silicious soils. It is exceedingly hardy and withstands extremes of heat and cold, and also long periods of drought. For permanent pastures on poor lands it is especially valuable, but it may also be used in meadow mixtures for well-manured, clayey lands. In the latter case it has been known to yield a good crop of excellent hay and a very large aftermath. On account of its stooling habit, it is not recommended for lawns. Height, 1 to 2 feet. 30 lbs . to the acre. ( 20 lbs. to the bushel.) Per lb., 20 cts.; io lbs., \$1.75; ioo lbs., \$16.
FESTUCA ELATIOR (Tall Fescue). This grass is a native of Europe, but was long ago introduced in this country, and is now naturalized and widely grown here. It succeeds best in moist, alluvial, and strong, clayey soils. It is very productive and of long duration, and is especially valuable for permanent pasture. Stock of all kinds eat it readily, and its nutritive value is said to be very great. On rich, moist lands it yields a large a mount of hay of excellent quality. It is not suitable for lawns. Height, 3 to 4 feet. ( 22 lbs. to the bushel.) 40 lbs . to the acre. Per lb., 40 cts.; 10 lbs., $\$ 3.50$; ioo lbs., $\$ 33$.
FESTUCA FLUITANS (Floating Fescue). A perennial with long, creeping roots, and preferring a rich, muddy, or alluvial soil. It is found in ditches, shallow ponds, sides of rivers and lakes, and in boggy, and marshy ground. As trout and wild duck are very fond of the seeds and tender shoots, it is often introduced on the margins of ponds and rivers with the view of affording them nourishment. ( 24 lbs . to the bushel.) Per lb., 42 cts.; io lbs., $\$ 3.80$.
FESTUCA HETEROPHYLLA (Various-leaved Fescue). A very early hardy perennial, 2 to 3

Festuca Heterophylla, continued :
feet high, thriving best in cold, moist soils that are rich in humus and potash. In such soils it yields heavily, and is valuable in grass mixtures for permanent meadows, either for mowing or grazing. Its great production of root-leaves makes it an excellent bottom grass. Its nutritive value is said to be very high. It grows very well in the shade, and is highly recommended for shaded lawns in mixture with other grasses. ( 15 lbs . to the bushel.) 40 lbs . to the acre. Per lb., 40 cts .; Io lbs., $\$ 3.50$; 100 lbs ., $\$ 30$.
FESTUCA OVINA (Sheep"s Fescue). A native both of America and Europe. In our northwestern states there are many varieties of it, some of which grow 2 or 3 feet high. It prefers dry uplands and thrives in poor, shallow, gravelly soils, where other grasses would fail. It is very hardy, resisting extreme heat and cold. Though of dwarf growth, it grows thickly, yielding a large amount of nutritious herbage. In grass mixtures for pastures on high and dry lands, it is especially valuable. Though a "bunch grass," it may be included in lawn mixtures as well as in fair green mixtures on account of its fine foliage and dwarf, dense growth. $1 / 2$ to $15 / 2$ feet. 35 lbs . to the acre. ( 16 lbs , to the bushel.) Per lb ., 20 cts.; io lbs., \$1.75; 100 lbs ., \$16.
FESTUCA PRATENSIS (Meadow Fescue, or English Blue Grass). One of the grasses most used in permanent or temporary meadows for mowing or for pasture. It succeeds best in cold, moist, light soils, in well-drained meadows and in low valleys rich in organic matter. It should not be grown at all in warm, dry land. It does not reach its full development till the second or third year, when it far exceeds most other sorts in the quantity of its produce and nutritive matter. After being mown it grows again very quickly The forage, either green or dried, is very nourishing and much relished by cattle, especially when it has been cut young. Height, 2 feet. 40 lbs . to the acre. ( 27 lbs . to the bushel.) Per lb., 25 cts.; 1o lbs., $\$ 2.25$; 100 lbs ., $\$ 20$.
FESTUCA RUBRA, True (Red, or Creeping Fescue). A creeping-rooted species, forming a close and lasting turf, and especially adapted for dry, sandy soils. It resists extreme drought, and thrives on very inferior soils, gravelly banks and exposed hillsides. It is also valuable for shady places in lawns, as well as for golf courses and for binding shifting sands on the seashore. 30 lbs . to the acre. ( 24 lbs . to the bushel.) Per lb., 35 cts.; ro lbs., $\$ 3.25$; 100 lbs., $\$ 28$.


## GRASS SEEDS, continued

FESTUCA TENUIFOLIA (Slender Fescue). This is really a variety of Festuca ovina, with much finer leaves. It will grow on very dry and inferior soils, and its dwarf habit of growth and fineness of leaf render it not unsuitable for dry slopes on lawns and golf links. It stands grazing well, is very hardy and lasts long, and may therefore be recommended for permanent pasture on high and dry situations. 30 lbs . to the acre. ( 22 lbs. to the bushel.) Per lb., 40 cts.; 10 lbs., $\$ 3.75$; 100 lbs., \$34.

## FOXTAIL. See Alopecuirus pratensis.

HOLCUS LANATUS (Meadow Soft Grass; Velvet Grass). This grass is of fair agricultural value, and it will thrive on poor soil, where better sorts will not grow. It is a perennial, very hardy and grows rapidly. As a forage plant its nutritive value is small, yet it makes a hay that is eaten readily by cattle, especially when it is sprinkled with salt. Height, I to 2 feet. 35 lbs . to the acre. Per lb., 25 cts.; Io lbs., $\$ 2.25$; IOO lbs., $\$ 18$.
HUNGARIAN GRASS. See Panicum Germanicum.
JOHNSON GRASS. See Sorghum Halepense, page 58 .
LOLIUM PERENNE (Pacey's Perennial Rye. Grass). Although called a perennial, it seldom lasts more than three or four years. It is the most valuable grass of Great Britain, both for pastures and for meadows, occupying there the same relative position of importance that Timothy bolds here. The cool, moist clmate of England seems to suit it best, yet it succeeds very well in our middle and eastern states, and adapts itself to a great diversity of soils. The seed is large and heavy, and produces a strong, verdant growth in four or five weeks after sowing. It cures into hay that is rather hard, but having a sweet flavor, and much relished by cattle and horses. Its nutritive value, especially in mixture with Red Clover, is very great. It is excellent in mixtures for quick effects in lawns or golf links. Height, $\mathrm{I}^{1 / 2}$ to 2 feet. 60 lbs . to the acre. ( 28 lbs . to the bushel.) Per lb., I5 cts.; io lbs., \$I; ioo lbs., $\$ 8$.
LOLIUM PERENNE. Fancy. A carefully selected short-seeded, dwarf-growing strain, suitable for lawns. Makes a fine green turf in three weeks. Per lb., $20 \mathrm{cts}$. ; io lbs., \$i.50; ioo lbs., \$I2.
LOLIUM ITALICUM (Italian Rye Grass). Though lasting two or three years under very favorable circumstances, it is practically an annual. Like the perennial Rye Grass it is a remarkably

## Lolium Italicum, continued

rapid grower, and has, in addition, the advantage of standing extremes of temperature, remaining green throughout the winter, and retaining its freshness in the hottest summer months and during prolonged droughts. When sown very thickly, or in mixture with other sorts, it makes a good, dense turf, and it has been used with much satisfaction on lawns as far south as Jacksonville. On rich, moist soils, it is exceedingly productive, and may be cut in four or five weeks after sowing, and every six weeks after that until frost. For temporary meadows, on good soils, it is a most valuable grass. Height, $11 / 2$ to $21 / 2$ feet, 50 lbs . to the acre. ( 22 lbs . to the bushel.) Per lb., $\mathrm{I}_{5}$ cts.; io lbs., \$1.20; ioo lbs., \$9.
OAT GRASS. See Avena elatior
ORCHARD GRASS. See Dactylis glomerata.
PANICUM GERMANICUM (Hungarian Grass). One of the most valuable annual soiling plants. It grows on any ordinary soil; withstands drought well. As it is of very rapid growth, being ready for cutting within sixty days, it may be sown in this latitude as late as the middle of July for hay, or the middle of August for green fodder. It should be cut just before blooming. Sow 1 to $11 / 2$ bushels to the acre. ( 50 lbs . to the bushel.) Price variable.
PASPALUM DILATATUM (Australian Water Grass). A somewhat leafy perennial, growing in clumps. Valuable as a pasture grass for the South, endures summer heat and drought very well and is especially desirable for furnishing late summer and autumn feed, during which period it makes its principal growth. Sow lightly on the surface in warm weather. The seed should barely be covered with soil. Sow from 8 to 10 lbs. to the acre, with 5 lbs . Hungarian grass as a temporary protection. Per lb., $40 \mathrm{cts} . ;$ io lbs ., $\$ 3.75$; Ioo Ibs., $\$ 34$.
PHALARIS ARUNDINACEA (Reed Canary Grass). A very hardy perennial, preferring stiff, wet land, but also doing fairly well in dry, sandy soils. It grows well in ditches, and by riversides, where its strong, creeping rootstocks render it valuable for binding the banks. Its seed also affords food for trout and wild fowl. When young, it may be cut for green forage for cattle, but in its more matured state it is too coarse for this purpose. ( 30 lbs . to the bushel.) Per lb., 50 cts. ; 10 lbs ., $\$ 4.40$.


## GRASS SEEDS, continued

PHLEUM PRATENSE (Timothy). A native of Europe, but long ago naturalized in America, where it ranks as by far the most important of hay grasses. On moist, loamy or clayey soil it produces a larger hay crop than any other grass. It is not so well suited for light sandy soils. Though preferring a moist, temperate climate, it withstands drought and extreme heat and cold. Its hay is very nourishing and can be preserved for a long time. It should be cut when flowering, as, if left later, the hay becomes hard and coarse. It is often sown along with red Clover, and the nutritive value of the hay is greatly increased by this mixture. Height, 2 to 3 feet. If sown alone, at least one-half bushel to the acre should be used. The seed weighs 45 lbs . to the bushel. Several grades are always on the market, differing in purity and vitality. It is always most econom,ical to buy the highest grade, known as "Fancy." Present price, per lb., 15 cts.; io lbs., \$1.20; per bus. of 45 lbs., $\$ 3.75$.
POA AQUATICA (Water Meadow Grass). This is an excellent pasture grass for very wet situations. It also does well in bogs and marshes, and is useful in the same way as Festuca fluitans. 20 lbs. to the acre. (II lbs. to the bushel.) Per lb., 50 cts.; io lbs., $\$ 4.40$.
POA COMPRESSA (Canada Blue Grass). A very hardy perennial grass, with creeping rootstalks, forming a close and durable turf of fine texture. It grows on the poorest and driest soils, sandy, gravelly or clayey, standing extremes of wetness or drought, and keeping green until the severe frosts of winter. It is said to be especially valuable for dairy pastures, cows feeding on it yielding the richest milk and finest butter. It is distinguished from the Kentucky Blue Grass by its flattened, wiry stems and by its decidedly bluer color. Height, 6 to 18 inches. 4 to 5 bushels to the acre. (I4 lbs. to the bushel.) Per lb., I6 cts.; ıо lbs., \$1.40; Ioo lbs., \$10.

POA NEMORALIS (Wood Meadow Grass). The chief characteristic of this grass is its special fitness for shaded positions in lawns and woodland parks, where other grasses will not grow. It is very permanent and hardy, resisting extremes of

Poa Nemoralis, continued.
heat and cold, and is one of the first grasses to show a rich green growth in the spring. The creeping roots are formed under ground, and make a good turf and should be included in all putting-green mixtures. It is excellent for pasture. 30 lbs . to the acre. ( 19 lbs . to the bushel.) Per lb., 65 cts.; 10 lbs., $\$ 6$; 100 lbs ., $\$ 55$
POA PRATENSIS (Kentucky Blue Grass; June Grass). One of the most widely distributed and valuable native grasses. It combines more points of excellence than any other sort. It is a true perennial, lasting indefinitely and improving every year. Its densely creeping rootstalks, spreading habit and smooth, even growth, fine texture and rich green color render it one of the very best grasses for lawns. It forms a close turf, starts very early in the spring, and lasts till frost. It succeeds in almost any soil, dry, rocky, sandy or gravelly, and stands long-continued dry weather and hot suns. It takes, however, two or three years to become well established, and should, therefore, be sown only in connection with other grasses. If the soil is especially suitable it will eventually crowd these out, and make the finest possible sward. It is one of our most valuable pasture grasses, very productive and nutritious. 3 bushels to the acre. (It lbs. to the bushel.) Per lb., 20 cts.; io lbs., $\$ \mathrm{I} .75$; 100 lbs ., $\$ 14$.
POA TRIVIALIS (Rough-stalked Meadow Grass). A spreading, thickly matted, stoloniferous-rooted species, forming a fine turf, and adapted for shaded portions of lawns. ${ }^{4}$ It thrives on rich, moist soil and in sheltered situations, but not on dry land. Valuable for forming bottom grass in mixtures for permanent pastures. Height, i to 3 feet. ( 26 lbs . to the bushel.) 20 lbs . to the acre. Per lb., 45 cts.; io lbs., $\$ 4$; Ioo lbs., $\$ 35$.
RED TOP. See Agrostis vulgaris.
RYE GRASS. See Lolium Italicum and Lolium perenne.
RHODE ISLAND BENT GRASS. See Agrostis canina.

## TIMOTHY. See Phleum pratense.

KENTUCKY BLUE GRASS. See Poa pratensis.

FOR CLOVERS, SEE NEXT PAGE

The revised edition of our pamphlet on the seeding and preservation of Golf Links is now ready and will be mailed free to any one desiring a copy.

We shall be pleased to make special mixtures for any purpose or to suit exceptional conditions of soil, situation or climate-for very sandy or clayey ground, for very dry or wet situations, for steep slopes, terraces, tennis courts, croquet greens, polo-grounds, etc. We invite consultation about any difficulties experienced in getting the right turf for any purpose or in any place, and we recommend and furnish suitable fertilizers.

For Special Meadow and Pasture Mixtures see page 48, and for Forage, Economical and Miscellaneous Seeds and Field Corns and Cereals, see pages 55 to 58 . Fertilizers are quoted on page 132.


## ClOVE1S $\begin{gathered}\text { Subject to change of price. Our } \\ \text { quotations are those ruling at this time }\end{gathered}$

ALFALFA, or LUCERNE (Medicago sativa). One of the most valuable and largely grown forage plants. It requires a deep, rich, well-drained soil. It roots very deeply, the tap-root descending often to a depth of 10 or 15 feet in loose soil. It is, consequently, capable of resisting great droughts. In the West it is the best crop for hay or for soiling. It should be sown alone (about same time as oats are sown in this section) in thoroughly prepared, deeply plowed soil, at the rate of 20 to 25 pounds to the acre. It is also successfully sown as late as August and up to the middle of September in more southerly localities. The crop should be cut when the plant is coming into bloom. In suitable soil the plant is perennial, and several crops may be cut every year. Height, I to 3 feet. Per lb., 22 cts.; io lbs., $\$ 2$; 100 lbs., \$18.
TURKESTAN ALFALFA. Imported from Turkes$\tan$. It is said to be hardier and more productive than the ordinary variety, and also withstands drought much better. Per lb., 22 cts.; io lbs., $\$ 2$; Ioo lbs., \$18.
ALSIKE, or HYBRID CLOVER (Trifolium hybridum). A perennial I to 3 feet high, succeeding best in cold and stiff soils, and in marshy lands which are too wet for other species. It grows well in the far north and in high altitudes, and can withstand severe cold. A good honey plant for bees. 15 lbs . to the acre. Per lb., 22 cts.; 10 lbs., $\$ 2$; Ioo lbs., $\$ 18$.
BERSEEM, or EGYPTIAN CLOVER (Trifolium Alexandrinum). This clover is said to be especially suited for a rotating crop for irrigated lands. It yields heavily in Egypt, growing a little taller than alfalfa. It is very succulent and much relished by stock. Its value as a soil renovator is also said to be very high. Per lb., 35 cts.; 10 lbs., $\$ 2.50$; 100 lbs., $\$ 22$.
BOKHARA CLOVER (Melilotus alba). A most valuable sort for soiling. It grows from 3 to 5 feet high, and if sown in rich soil may be cut three times; lasts two years or more if cut before flowering; good for ensilage and bees. 15 lbs . to the acre. Per lb., 25 cts.; io lbs., $\$ 2.25$; 100 lbs ., $\$ 20$.
CRIMSON, or SCARLET CLOVER (Trifolium incarnatum). Erect annual, I to 2 feet high, with bright scarlet flowers. It is a native of southern Europe, and is now largely grown in our southern states for improving the soil by turning under. It will not stand severe frost, and cannot be depended upon to stand the winter north of New

Jersey. It makes a very valuable crop for pasturage or green manure. For hay it should be cut when in full bloom. Sow 20 lbs. to the acre. Present price, per lb., I8 cts.; 10 lbs ., $\$ 1.25$; 100 lbs., \$II.
JAPAN CLOVER (Lespedeza striata). An annual growing about 12 inches high; valuable only in southern localities, where it thrives in any soil in the driest season; it makes a fair hay, and stock eat it readily when green. It is also valuable for turning under as green manure. Sow in spring broadcast at the rate of 30 lbs . to the acre. Per lb., 30 cts.; io lbs., $\$ 2.75$; ioo lbs., $\$ 24$.
KIDNEY VETCH, or SAND CLOVER (Anthyllis vulneraria). A deep-rooted, herbaceous hardy perennial plant, valuable for dry sands and inferior soils, upon which Red Clover will not thrive. Eaten with avidity by sheep, cattle and horses; useful in mixture for dry soils. Sow 20 lbs . to the acre. Per lb., 28 cts.; io lbs., $\$ 2.60$; 100 lbs ., $\$ 23$.
RED CLOVER, MEDIUM (Trifolium pratense). One of the most valuable farm crops of the eastern states for pasture, soiling, hay or turning under for green manure. It requires a deep, rich soil, and yields two hay crops in the season. In this section sow in the spring at the rate of 15 lbs . to the acre. Price variable.
MAMMOTH RED, or PEA VINE CLOVER (English Cow Grass). Grows larger and lasts longer than the common Red Clover; valuable for plowing under. Io lbs. to the acre. Price variable.
WHITE CLOVER (Trifolium repens). Some White Clover is usually included in lawn-grass mixtures. It makes an excellent turf that stands constant trampling. It is of dwarf habit, the stems creeping and rooting at the joints. It spreads rapidly, and is very hardy. It is valuable in permanent pastures, its forage being sweet and nutritious. Sow in the spring. In mixtures, 1 or 2 lbs.; if alone, 8 or 10 lbs . to the acre. Per lb., 25 cts .; io lbs., \$2.25; ioo lbs., \$20.
YELLOW SUCKLING CLOVER (Trifolium filiforme). Native of northern Europe. Prefers sandy clay soils; valuable for sheep pastures; recommended in grass mixtures for wet, sandy meadows. Lb., 40 cts .
YELLOW TREFOIL (Medicago lupulina). An annual or biennial suitable for pastures in wet meadows or for stiff, clayey soils too poor for Red Clover. It is very useful in some sections of the country, sometimes used for hay. 15 lbs . to the acre. Per lb., 18 cts.; $10 \mathrm{lbs} ., \$ 1.25$; 100 lbs ., \$II.

## Cereals

Customers will please add cost of bags when ordering, as follows; $1 / 2$ bushel, 9 cents; I bushel, 12 cents 2 bushels, 23 cents.

The prices of some varieties may change as the season advances. Customers pay transportation charges.

## FIELD CORN ( 56 lbs . to bushel) <br> All grown especially for seed <br> FLINT VARIETIES



## MISCELLANEOUS CEREALS

All subject to change in price. Those marked with an * are imported Swedish varieties.

| BARLEY ( 48 lbs . to the bushel). 2 bushels to the acre |  |
| :---: | :---: |
| Champion. Price variable; about | \$0 IO \$I 50 |
| *Swedish 6-rowed. Flat cylindri- |  |
| BUCKWHEAT ( 48 lbs . to the bushel). |  |
| American Silver Hull. Early Japan. Productive; large grains | Market |
| MILLETS (50 lbs. to the bushel)- |  |
| Japan Barn-yard (Panicum Crus- |  |
| to the acre . . . . . . . . . . . . . . . . . \$0 $12 \$ 800$ |  |
| Hungarian I to I $1 / 2$ bush. to acre. . . . Market price |  |
| White French. White grain | 12800 |
| Red Siberian | 10550 |
| Golden. Largely grown for feedingbirds. I $1 / 2$ bushels to the acre. . |  |
|  |  |
| Pearl. Southern fodder plant | 15950 |
| OATS ( 32 lbs . to the bushel). 2 to 3 |  |
| ana | Qt. Bus. |
| Clydesdale, American-grown | $\begin{array}{lll}15 & 1 & 50\end{array}$ |

*Beardless Propsteier. Good yielder; medium early; yellow grain ..... \$0 20 \$2 25
*White Ligowo. Bearded. Large, broad grain, thin skin; white. .... White Propsteier. Bearded. Shor
full grain; white; medium early.
Golden Rain. As a rule beardless Golden Rain. As a rule beardless.
Small yellow grain. Good yielder. Thrives on poor oat lands.
RYE ( 56 lbs . to the bushel). I $1 / 2$ to 2 bushels to the acre-
Spring Rye
$20 \quad 200$
Winter Excelsior......................... I5 I 50
Mammoth Winter. Maximum crop 50 bushels of grain and 3 tons of straw per acre. ................
WHEAT, WINTER ( 60 lbs . to the bushel). $11 / 2$ bushels to the acre-
Rupert's Giant. Bald red grain.
Winter Fife. Red grain; bald.
$20 \quad 200$
Durum. The best for macaroni .. $\quad 25 \quad 2 \quad 75$
Klondyke. White grain; bald... 20225

## Forage, Economical and Miscellaneous Seeds

Except where noted, these seeds are not sold in packets. From 10 c . to 25 c . worth is the smallest quantity put up. All subject to change in price

ASPERULA odorata (Waldmeister). Perennial, about 6 inches high; very fragrant flower. In Germany it is thought much of as imparting a certain bouquet to Rhine wine, making the wellknown Maitrank. Per pkt., 5c.; per oz., 50 .
AUSTRALIAN SALT BUSH (Atriplex semibaccatum). Thrives in soils on which nothing else will grow, and it is highly recommended for alkali soils and all regions subject to periodical drought. It is very nutritious, and good for all kinds of live stock. Two to three pounds of seed are sufficient for an acre. The seed may be sown in beds, and the seedlings planted out when 2 inches high, 3 feet apart. Per oz., I5c.; per lb., \$1.25.
BEANS ( 60 lbs . to the bushel)-
Velvet Bean (Dolichos multifiorus). Used in the South as a forage plant, and as a fertilizer plant for turning under. Stock readily eat the vines and leaves, and the Beans, when ground with or without the pod, are used in place of oats or corn, or mixed with them. Plant in rows 4 feet apart and $I$ foot in the row, 2 or 3 beans in a place, as soon as danger of frost is past. Per qt., 20 cts.; bus., $\$ 4.25$.
Common English Horse Bean. Per qt., 25 cts.; per bus., \$4.50.
Soja Bean. Thrives well in hot and dry weather; valuable for the South. Plant at the rate of $1 / 2$ to $3 / 4$ bushel to the acre, in drills $21 / 2$ to 3 feet apart, and cultivate same as field corn. It does not make good hay, but is good as ensilage or green fodder.
Medium Early Green. Per qt., 20 cts., bus., $\$ 4$.
Ito San. Per qt., 20 cts.; bus., $\$ 4$
Yellow Southern. Per qt., 20 cts.; bus., $\$ 3.25$. BEGGAR WEED (Florida, or Giant Beggar-Weed; Desmodium tortuosum). An erect leguminous annual, growing from 3 to 8 feet high, with abundant foliage, valuable as forage or for soil renovation in subtropical regions; it also makes hay of a fine quality. It should be sown at the rate of 10 pounds to the acre, after the ground is warm and moist. The seed should be but very lightly covered. If for hay, it should be cut just as it begins to bloom. Per lb. 45 cts .; per 100 lbs ., $\$ 40$.
BERSEEM. See under Clover, page 54.
BROOM CORN ( 12 quarts to the acre). Broom Corn succeeds in a good, deep soil, fresh but not damp; it is very sensitive to cold.
Long-brush Evergreen. Perlb., I5c.; ioolbs., $\$ 6$.
Improved Dwarf. Per lb., I5c.; per $100 \mathrm{lbs} ., \$ 6$.
California Golden Long-brush. Grows from 12 to 14 feet high. Per lb., I5c.; ioo lbs., $\$ 6.50$.

BROOM-Scotch (Genista scoparia). The young growth of this shrub is chiefly valuable as food for sheep and other animals in winter. It is also employed for the making of coarse brooms. Per oz., 10 cts.; per lb., 60 cts.
BURNET-Common Field (Poterium sanguisorba). Perennial; makes excellent pasture for sheep; grows on the poorest ground-on dry, sandy or calcareous soils; resists the extremes of heat and cold. Sow in April, and again in September, with Sainfoin, Clover, Rye, Grass, etc., 30 lbs . to the acre. Per lb., 25 cts.; per 100 lbs ., $\$ 15$.
CAPER TREE (Capparis spinosa). Per paper, I5 cts.; oz., 75 cts.
CATERPILLARS. A curious plant. Of interest only on account of the curious fruits, from which its name is derived. Amusement is caused by mixing them in salads. Per paper, 5 cts.; oz., 40 cts .
CHICORY-Large-rooted. When the roots are dried, roasted and ground they become the Chicory of commerce, and are used in adulterating coffee. Per oz. Io cts.; per lb., 80 cts.
COTTON-Edgeworth. Per lb., I 5 cts.; per 100 lbs ., $\$ 8.50$.
Upland Big Boll. Very prolific. Per lb., I5 cts.; per ioo lbs., $\$ 8.50$.
Sea Island. Per lb., 18 cts.; $100 \mathrm{lbs} ., \${ }^{2} 3$.
COW-PEAS (Vigna Catjang). Specially adapted to warm countries; extensively grown in our southern states; also valuable in this latitude as a fodder plant; their chief value, however, is as a green crop to plow under. The seed should not be sown till the ground has become well warmed. I bushel to the acre, in drills; 2 to $21 / 2$ bushels to the acre if sown broadcast.

## Black. <br> Clay.

New Era.
All 20 cts per qt.; $\$ 3$ per bus. Whippoorwill.
EMMER (sometimes advertised as "Speltz,"," though this name is incorrect, the true "Speltz" being a different article). It is grown quite extensively in the Northwest, having been brought by the Germans from Russia, where it is considered a valuable cereal on account of its hardiness and drought-resisting qualities. per lb., 15 cts.; per 100 lbs., $\$ 6$.
ESPARTO GRASS. (Stipa tenacissima). This is the true Esparto Grass, extensively grown in Spain and other parts of the Mediterranean countries for making rope, etc. Per oz., $\$$ I. 25 .

## MISCELLANEOUS SEEDS, continued

ESPARSETTE. See Onobrychis sativa. Same page.
FENUGREEK. Annual. This seed is often sought by hostlers to give temporary fire and vigor to their horses. It is frequently given to oxen and pigs when fattening, causing them to drink and digest their food. Considered to be good for soiling when green. Per oz., io cts.; per lb., 25 cts.
FLAT PEAS. See Lathyrus sylvestris, below.
FLAX SEED. $11 / 2$ bushels to acre. Price variable.
FURZE (Ulex Europaa). Also known as Whin and Gorse. A perennial leguminous shrub. The crushed sprigs of one year's growth of this shrub furnish an excellent green fodder in winter. It grows well on barren hillsides and in sandy soil. Sheep are fond of it. 25 lbs. to the acre. Per oz., Io cts.; per lb., 80 cts.
HEDYSARUM coronarium, "Sulla." Per oz., IO cts.; per lb., 70 cts.
HEMP. One bushel to acre. Per lb. Ioc., Ioo lbs. $\$ 6$.
HOP SEED. Per pkt., io cts.; per oz., 75 cts.
INDIGO SEED (Indigofera Dosua). Per oż., 30 cts.; lb., \$3.
IRIS pabularia. A forage plant flourishing in the driest and most arid soil. The seeds should be sown in beds, and the young plants set out 10 inches apart each way, where they are to remain, very early the following spring. Per oz., 75 cts.
JAPAN CLOVER. See Lespedeza striata, below.
JERSEY WINTER KALE, or Cow Cabbage. For feeding cattle; very hardy. Per pkt., 5 cts.; per oz., 10 cts.; per $1 / 4 \mathrm{lb} ., 20$ cts.; per lb., 55 cts.
JERUSALEM CORN. See Sorghum, page 58.
JUTE. Annual. Thrives in any good corn ground. Sow in drills, about 8 inches apart, 4 pounds to the acre. Requires no cultivation, as it will outstrip in growth all weeds. May be also sown broadcast. 6 to 7 pounds per acre. Per oz., 10 cts .; per lb., 50 cts .
KAFFIR CORN. See Sorghum, page 58.
KIDNEY VETCH, or Sand Clover. See Clovers, page 54 .
LATHYRUS sylvestris (Flat Pea). A perennial forage plant. The vines, when cut, dry out readily and make a nutritious hay, which is relished by cattle and horses. Grows well on very poor, sandy soil, can withstand severe frosts, and roots so deeply that it is not injured by severe drought. It is recommended to sow seeds in beds and transplant to the field when the plants are of suitable size. Per oz., Io cts.; per lb., 80 cts .
LESPEDEZA striata (Japan Clover). An annual, growing about 12 inches high, valuable only in southern localities, where it thrives in any soil and in the driest season; it makes a fair hay, and stock eat it readily when green. It is also valuable for plowing under as green manure. It is usually sown in the spring broadcast, at rate of 30 lbs . to the acre. Per lb., 30 cts .; per 100 lbs.. \$24.
LIQUORICE (Glycyrrhiza glabra). Seed in pods, per oz., 35 cts.

LOTUS corniculatus (Bird's-foot Trefoil). Perennial, used in pastures. Cattle and sheep eat it readily, and it is said to be quite nutritious. It grows on the lightest and most sterile soils, and can withstand severe droughts. Is excellent for sowing in mixture for dry pastures. Per lb., 75 cts.
villosus or major (Greater Bird's-foot Trefoil). Per lb., 90 cts.
LUPINS, Yellow. Succeeds well in the poorest soil, and is exceedingly valuable for plowing in to improve sandy soils. It makes good forage either green or as hay. The seeds are very fattening when used with hay. Sow in the spring when the ground has become warm, at rate of 90 lbs . to the acre. Per lb., 20 cts.; per Ioo lbs., \$8.
White. One of the best plants known for green manure, as it gathers large quantities of nitrogen from the air. It may be sown from April to July, and plowed under when in flower. The seed, when burned, is excellent manure for orange and olive trees. Per lb., 20 cts.; per 100 lbs., \$9.
Blue. Used for the same purpose as the white variety. Per lb., $20 \mathrm{cts} .$, per Ioo lbs., $\$ 8$.
MADDER (Rubia tinctoria). A perennia', the roots of which, when dried and reduced to powder, furnish a red coloring matter. If cut the second year when in flower, it furnishes a good green fodder. Per oz., Ioc.; per lb., \$I
MADIA sativa. An annual plant, producing good sheep pasturage; valuable in dry and warm soil. Per oz., Io cts.; per lb., 60 cts .
MILLETS. See Cereals, page 55.
MILLO MAIZE. See Sorghum, Branching, page 58.
ONOBRYCHIS sativa (Sainfoin, French; Esparsette, German). A perennial leguminous plant, belonging to the same family as Clover and Lucerne. It is a valuable plant for growing on poor land and barren hillsides. When once well established, it lasts for many years. If to be used for hay, cut just before the flowering period. Sow in spring, covering the seeds quite deeply, at rate of 80 lbs . or 100 lbs . to the acre. Per lb., i5c.; per ioo lbs., \$10.
OSAGE ORANGE (Maclura aurantiaca) Useful for hedges. Per oz., 10 cts.; per lb., 40 cts.; per 100 lbs ., $\$ 25$.
PEARL MILLET (Penicillaria spicata). A valuable fodder plant for the South; is enormously productive. Sow the seed in drills 18 inches apart and 8 to 10 pounds to the acre. Per lb., I5 cts.; per roo lbs., \$9.50.
PEAS, Canadian Field. Valuable for northern climates, for cattle-feeding, especially for milch cows. It also makes fine ensilage. It is sown broadcast in the spring and harrowed in. If sown with oats, about $11 / 2$ bushels to the acre, in drills, 2 to 3 bushels to the acre. Market price.
PENICILLARIA spicata. See Pearl Millet above.
POPPY, Opium. The seed furnishes an agreeable sweet oil, used for the table, also for painting and for illuminating. May be sown in spring either broadcast or in drills, covering thinly. Also cultivated for opium. Per oz., 20 cts.; per lb., 75 cts.

## MISCELLANEOUS SEEDS, continued

POLYGONUM Sachalinense (Sacaline). Hardy perennial, native of the island of Saghalin, between Japan and Siberia. It grows well on the poorest soils, and endures the extremes of heat and cold. Reaches a height of 10 to 12 feet, and can be cut two or three times in the season. The stems and leaves, which are very nutritious, are eaten either green or dry by cattle and sheep, and much relished. Clean seed, per oz., 45 cts.; per lb., $\$ 4$.
RAMIE-Silver China Grass (Urtica nivea). Extensively cultivated for its fiber. The seed should be germinated on cotton floating in luke-warm water, and transferred to a bed, screened from the hot sun. When the plants are 4 inches high, transplant to a field in rows 4 feet apart each way; when 3 feet high, turn them over and peg down, covering with earth, and they will start in every direction. Per oz., \$1.25; per 1b., \$16.
RAPE-Dwarf Essex English. Largely grown in the northern United States, and in Canada. It is excellent for sheep pasture, and also for soiling. It may be sown in May, and will be ready for pasturing in July and August. Or it may be sown in June or July, and yet furnish a large amount of pasture or fodder. In drills, sow 5 pounds to acre; sown broadcast, io pounds to the acre. Per lb., io cts.; per ioo lbs., $\$ 8$.
REANA luxurians (Teosinte). A valuable fodder plant from Central America, in growth resembling Indian corn. Well adapted to our southern states. Per oz., 10 cts.; per lb., 40 cts.; per ioo lbs., $\$ 35$.
RICE SEED, for sowing. Best Carolina. Per lb., Io cts.; per roo lbs., $\$ 8$.
SAINFOIN. See Onobrychis, page 57.
SALT BUSH. See Australian Salt Bush, page 56.
SACALINE. See Polygonum Sachalinense above.
SERADELLA. A valuable forage plant, admitting of one, and sometimes two cuttings, in one season. It succeeds well in a dry, sandy soil, and furnishes a good pasture for sheep. It may also be cured for hay. Can be sown with winter rye. About 50 pounds to acre. Per lb., 18 cts.; per $100 \mathrm{lbs} ., \$ 10$.
SNAILS. Used in the same way as Caterpillars. Per paper, 5 cts.; per oz., 40 cts.
SORGHUM ( 25 pounds required to the acre if sown in drills. For dry fodder 2 bus. should be sown to the acre).
Shallu. New. A non-saccharine sorghum from India, also known as Egyptian wheat. Requires more room to develop than ordinary sorghum and consequently needs less seed to sow an acre. Per lb., 20 cts.; Ioo lbs., \$10.
Early Amber Sugar Cane. Ripens wherever Indian corn matures. Per lb. 15 cts.; per 100 lbs., $\$ 7$.
Early Orange Sugar Cane. Ripens about ten days after Early Amber. Per lb., 15 cts.; per ioo lbs., \$7.
Yellow Branching (Yellow Millo Maize). Nonsaccharine; useful for the large amount of foliage; green feed or cured fodder that it furnishes and for its grain. Per lb., I5 cts.; Ioo lbs., $\$ 6$.

Sorghum, continued
Red Kaffir Corn, or Sorghum. Non-saccharine. The plant is low, stalky, perfectly erect. The whole stalk as well as the blades, cures into excellent fodder, and in all stages it is available for green feed. Per lb., 15 cts.; per 100 lbs ., $\$ 6$.
White Kaffir Corn. Per $1 \mathrm{~b} ., 15 \mathrm{cts}$.; 100 lbs., \$6.
Jerusalem Corn. Per lb., 15 cts., Ioo lbs., \$7.50.
Halepense (Johnson Grass). One of the most valuable southern fodder plants. On rich soils it may be cut three or four times
 in a single season, and it is claimed that hay made from it is equal in value to timothy. Sow in August and September, 35 or 40 pounds to the acre. Market price.
SPELTZ. See Emmer, page 56.
SPURRY (Spergula arvensis). Annual. Grows well on poor, dry, sandy soil; may be sown every month from March to August. Excellent pasture for cattle and sheep; also of much value as a fertilizer for light soil. 15 pounds to the acre. Per lb., 20 cts.; roo lbs., \$9.
Giant Spurry. Per lb., 20 cts.; $100 \mathrm{lbs} ., \$ 9$.
SUNFLOWER-Large Russian. Per lb., io cts.; per 100 lbs ., $\$ 6.5^{\circ}$ (price fluctuates).
TEASELS-Fuller's. Heads used for combing cloth. Require a deep soil; sow in April or May. The young leaves are used for feeding silkworms. Per lb., 25 cts.
TEOSINTE. (See Reana luxurians, this page.)
TOBACCO SEED. See page 44.
ULEX Europæa. See Furze, page 57.
VELVET BEAN. See page 56 .
VETCHES-Spring Tares (Vicia sativa). Sown broadcast at rate of 60 to 100 pounds to the acre, like wheat or barley, and sometimes mixed with oats for soiling. Used in France and Canada as a substitute for peas. Per lb., 10 cts.; 100 lbs., $\$ 5.25$.
Sand, Winter, or Hairy Vetch (Vicia villosa) Thrives on poor, arid, sandy soils. It may be sown either in fall or in spring, mixed with rye, for a support. Grows 3 to 4 feet high, and can be cut as soon as the bloom appears, and again for the seed. Perfectly hardy. Sow from 30 to 50 lbs . to the acre. Per lb ., $15 \mathrm{cts} . ;$ 100 lbs., \$7.25.
WALDMEISTER. See Asperula odorata, page 56.
WILD RICE (Zizania aquatica). A native of ournorthern and western states. Valuable as a forage plant for swamps and inundated lands, but chiefly as an attraction for water-fowl. Per lb., 25 cts.; per 100 lbs,. $\$ 17$.
wORMS. Used the same as Snails and Caterpillars. Per pkt. 5 cts.; per oz., 40 cts .

## Tree and Shrub Seeds

To preserve seeds of Conifers and other Evergreen Trees, it is best to keep them in perfectly dry sand until the time of sowing. For this latitude, the seeds should be sown thinly, as early in the spring as the ground can be worked, in beds of fine sandy loam. Cover to the depth of about the thickness of the seed, and press the beds gently with the back of the spade to firm the earth around the seeds. Great care must be taken not to give too much water, as the young plants damp off very easily. Water with a very fine rose, but never so that the ground becomes soggy. Some shade must be used to protect the young plants from the hot sun and winds, and to keep the birds from destroying them. Seeds of the rarer sorts may be sown in coldframes or boxes; if in coldframes, the sashes should be shaded and the frames raised at the corners 3 or 4 inches, to allow the air to circulate freely. Keep the young plants well weeded, and allow them to remain from one to two years before transplanting.

The propagation of Deciduous Trees from seeds is less difficult than that of Evergreen species. Acorns, Hickory Nuts, Chestnuts and Walnuts should be planted in autumn, or kept during the winter in earth or moss. They shrivel up by too long exposure to the air, and many of them lose their power of vegetating. Those seeds with hard shells, like the Locust, Gymnocladus, etc., should be planted in autumn or placed in boxes with sand, and exposed to frost before planting. They may not vegetate till the second year after planting, and if they are received too late in the spring to expose them to the action of the frost, they may be put into a vessel of hot water for an hour or so before planting. American Elm, Silver Maple, and a few other sorts ripen their seeds early in summer, and, if gathered and planted soon after they fall from the tree, will make fine plants the same season. The seeds of other Deciduous Trees and Shrubs should be planted from the middle of April to the middle of May, in drills abaut two feet apart, and covered about half an inch in depth, according to size.

Some of the varieties here offered are on hand now; many are due from foreign countries, where they are being collected for us. We are, of course, uncertain of getting all of them. As the season advances, many sorts become worthless from various causes, or are sold out, and cannot be replaced until the new crop is ready next season.

## EVERGREEN TREE AND SHRUB SEEDS

We do not sell Tree or Shrub Seeds in quantities of less than an ounce of any one variety, except those quoted at over 25 cents per ounce; of these, 25-cent packets may be ordered.

| Abies alba (White Spruce) . . . . . . . . . . \$0 30 | Per lb. $\$ 300$ |
| :---: | :---: |
| balsamea (Balsam Fir)............... 15 | I 25 |
| brachyphylla (Short-leaved Japan Fir). 45 | 450 |
| Cephalonica (Greek Silver Fir) . . . . . : 35 | 350 |
| concolor (Calif. White Silver Fir) . . . . 30 | 300 |
| firma (Japan Silver Fir) .............. 30 | 300 |
| Fraseri (Double Balsam Fir) . . . . . . . 40 | 4 oo |
| mariesii (Japan Silver Fir) . . . . . . . . . 65 | 650 |
| Nordmanniana (Nordmann's Fir) . . . . 20 | 200 |
| pectinata (European Silver Fir) ...... . 10 | 75 |
| Pinsapo (Spanish Fir) . . . . . . . . . . . . . 30 | 3 00 |
| sachalinensis . . . . . . . . . . . . . . . . . . . . . 40 | 4 oo |
| Veitchii. From Japan. . . . . . . . . . . . . 30 | 300 |
| Arborvitæ. See Thuja. |  |
| Buxus sempervirens (Evergreen Box) . . 20 | о0 |
| Japonica. From Japan............... 40 | 400 |
| Cedrus |  |
| Atlantica argentea (Mt. Atlas Cedar) . . 35 | 350 |
| Deodara (Himalayan Cedar) . . . . . . . . 35 |  |
| Libani (Cedar of Lebanon) . . . . . . . . . . 35 | 350 |
| Chamæcyparis obtusa. From Japan... 30 | 3 oo |
| Cryptomeria Japonica (Japan Cedar) . . 30 | 300 |
| Cunninghamia Sinensis....... . . . . . . 70 | 7 00 |
| Cupressus |  |
| Goveniana (Goven's Cypress) . . . . . . . . 50 | 500 |
| horizontalis (Horizontal Cypress) . . . . . io | оo |
| macrocarpa (Monterey Cypress).... . . . 15 | 1 25 |
| sempervirens (Evergreen Cypress) . . . io | oo |
| Fir Tree. See Abies and Picea |  |
| Juniperus |  |
| communis (European Juniper) . . . . . . 10 | 50 |
| hibernica (Irish Juniper) . . . . . . . . . . . . 35 | 350 |


| perus, continued |  |  |
| :---: | :---: | :---: |
| Oxycedrus (Sharp-leaved Cedar) | \$0 15 |  |
| Sabina (Common Savin). | 15 | 1 |
| Virginiana (Red Cedar) |  |  |
| Libocedrus decurrens(Cal |  |  |
| Norway Spruce. See Pice |  |  |
| a |  |  |
| Ajanensis. From | 55 | 55 |
| Alcoquiana (Japan Fir) |  |  |
| Douglasii (Douglas' Spruce). failed. |  |  |
| excelsa (Norway Spruce) |  |  |
| Engelmannii (Englemann's |  |  |
| Glehni. From Japan. |  |  |
| menziesii (Menzies Fir) |  |  |
| nigra (Black Spruce) |  |  |
| polita (Tiger's Tail Fir) |  |  |
| pungens (Rocky Mountain Spru |  |  |
| inus Austriaca (Austrian Pine) |  |  |
| Banksiana (Jack Pine) |  |  |
| Canariensis (Canary Island Pine) |  | 50 |
| Cembra (Cembran Stone Pine) |  |  |
| Coulteri (Coulter's Pine) |  |  |
| densiflora (Japan Pine) |  | 250 |
| flexilis (Graceful Pine). |  |  |
| insignis (Oregon Pitch Pine) |  | 50 |
| Jeffreyana (Jeffrey's Pine) |  |  |
| Koraiensis. From Japan. |  | 350 |
| Lambertiana (Sugar Pine) |  | 250 |
| Laricio (Corsican Pine). |  | 300 |
| maritima (Seaside Pine) |  | 60 |
| Massoniana (Chinese Pine) |  | 50 |
| mitis (Short-leaved Pine) | 45 | 450 |
| monophylla (California Nut |  |  |

## EVERGREEN TREE AND SHRUB SEEDS, continued

| Pinus (continued) | Per oz. |
| :---: | :---: |
| Muricata (Bishop's Pine) | \$0 60 \$6 |
| parviflora. From Jap | $25 \quad 250$ |
| pentaphylla. | 35350 |
| Pinea (Stone Pine, or Nut Pin | 1050 |
| rigida (Northern Pitch Pine) | $30 \quad 300$ |
| Sabiniana (Sabine's Nut Pine) | 15 I 50 |
| Strobus (White Pine) |  |
| 25 lbs. and over @ \$1.20 p | 15 I 30 |
| sylvestris (Scotch Pine) | 30300 |
| Torreyana (Torrey's Pine) | $40 \quad 400$ |
| Sciadopitys |  |
| verticillatus (Umbrella Pine of Japan) | ). 60600 |
| Schinus molle (False Pepper) |  |

## DECIDUOUS TREE AND SHRUB SEEDS




ACER SACCHARINUM

Almond. See Amygdalus.
Alnus glutinosa (Common Alder) ..... \$o io \$0 90 incana (Smooth White Alder) Oregona (Oregon Alder) rugosa.
Amelanchier canadensis (Shad Bush).
Amorpha angustifolia. . . . . . . . . . . . . . . . . . . . . . . 10 60 Montana. IO
Tennesseensis. . . . . . . . . . . . . . . . . . . . . . Io
Ampelopsis hederacea (Woodbine) .... Io I 00
Veitchii (Boston Ivy). Clean seed.... 40 4 50
Amygdalus
vulgaris dulcis (Sweet Almond) . . . . . . 10
vulgaris amara (Bitter Almond)
Aralia Sieboldii. From Japan.
spinosa. From Japan.
pordata ("Udo "salad). From Japan
cordata ( 400
Arbutus Unedo (Strawberry Bush) .... 30300
Aristolochia Sipho (Dutchman's Pipe). I 50
Ash. See Fraxinus.
Azalea occidentalis.

| Berberis | Per oz. |  |
| :---: | :---: | :---: |
| ens (Creeping-rooted Barberry) | \$0 20 |  |
| Thunbergi. Fine for hedges. | 25 | 250 |
| vulgaris (Common Barberry) | 10 | -0 |
| vulgaris purpurea (Purple-leaved) |  | 200 |
| Betula alba (White European Birch) |  | O |
| alba laciniata (Fern-leaved Birch) |  | 125 |
| alba pendula (Com. Weeping Birch) |  |  |
| lenta (Mountair Mahogany) |  | 250 |
| lutea (Yellow or Grey Bi |  | 250 |
| nigra (Red Birch) | 15 | 150 |
| papyracea (Paper Birch) | 25 | 250 |
| populifolia (Poplar-leaved Birch) | 15 |  |

Boston Ivy. See Ampelopsis Veitchii.
Broom. See Genista.
Broussonetia papyrifera (Paper Mulberry)................................. . . . 25
Callicarpa Japonica. From Japan..... 35350
Calycanthus
floridus (Com. Carolina Allspice) ..... I 15 I 25
Camellia Japonica. From Japan...... 20200
Camphoŕ. See Cinnamomum.
Carpinus Americana (Water Beech) ... io
75
Castanea Japonica (Japan Chestnut) ... io 60 Catalpa

Bignonioides (Indian Bean of North America).............................. . . 10 I 00
Kæmpferi (Japanese Catalpa)....... 20200

## Ceanothus

Americanus (New Jersey Tea) ....... io io oo
Celtis australis (European Nettle Tree). $15 \quad 125$
Cephalanthus occidentalis (Buttonball) 15 I $\quad 25$
Ceratonia Siliqua (St. John's Bread) ... io 90
Cercidiphyllum Japonicum........... I 75
Cercis
Canadensis (American Judas Tree)... io I 00
Siliquastrum (European Judas Tree) . . io 100
Cinnamomum Camphora (Camphor). 20200
Citrus trifoliata (Hardy Japan Orange) 20 I 75
Clematis
flammula (White Virgin's Bower) . .. 20200
Virginica (American Virgin's Bower) . . $20 \quad 200$
vitalba (Traveler's Joy),............... 15 I 25
viticella (Purple Virgin's Bower)..... 20 I 75
Clethra ainifolia (Sweet Pepper Bush). . 10 I 00

## Colutea

arborescens (Shrubby Bladder Senna) . Io

## DECIDUOUS TREE AND SHRUB SEEDS, continued




Ligustrum

Per oz. Per lb.

Japonicum (Japan, or Califor. Privet)\$0 io \$o 60
vulgare (Common Privet) ............ Io
Liriodendron tulipifera (Tulip Tree) .. io 80
Locust. See Gleditschia and Robinia.
Maclura aurantiaca (Osage Orange)

$$
\text { ioo lbs., \$25... } 10
$$

Magnolia acuminata (Cucumber Tree). I5 I 50 grandiflora (Large-flowering)
$20 \quad 200$
macrophylla (Great-leaved Magnolia) . $20 \quad 200$ tripetala (Umbrella Tree)
$20 \quad 200$
Mahonia aquifolia (European Holly)... io 125
Maple. See Acer.
Morus alba (White Mulberry) .......... 2525
alba fructa nigra ..................... $25 \quad 20$ alba rosea (Rose-leaved Mulberry) ... $30 \quad 300$ Cedrona.
$50 \quad 500$
Moretti (Dandolos Mulberry) ........ $45 \quad 450$ rubra (American Red Mulberry) ..... $25 \quad 250$
Tatarica (Russian Mulberry) ......... 20200
Mulberry. See Morus.
Negundo aceroides (Box Elder)........ 10 50
Nyssa multiflora (Sour Gum Tree) ..... $10 \quad 60$
Oreodaphne Californica (Cal. Laurel) . . 20 I 75
Osage Orange. See Maclura.
Paliurus aculeata (Christ's Thorn) ..... io 60
Paulownia imperialis (Paulownia) ..... I5 I 50
Platanus orientalis (Oriental Plane).... io 75 occidentalis (Button-ball) . . . . . . . . . . . 10 . 55

## J. M. THORBURN \& CO., 33 BARCLAY ST., NEW YORK

## DECIDUOUS TREE AND SHRUB SEEDS, continued



| Styrax Japonica | Per oz. Per lb. <br> \$0 $20 \quad \$ 200$ |
| :---: | :---: |
|  | 606 |
| Syringa vulgaris (Lilac), clean seed Japonica (Japan Lilac) | $\begin{aligned} & 4^{0} \\ & 5^{0} \end{aligned}$ |
| Tamarix Gallica (Common Tamarisk) . . 50 |  |
| Tecoma radicąns (Trumpet Creeper) |  |
| Thea viridis (Green Tea of Jap Sinensis (Chinese Tea) | $\begin{aligned} & 1,5 \\ & 20 \end{aligned}$ |
| Tilia americana (American Ba | 1075 |
| argentea (Silver-leaved Linden) | 15 |
| Europæa (European Linden) | 15 |
| grandiflora (Large-leaved Linden). | 15 |
| heterophylla (American White B wood) | $\begin{array}{lllll}\text { as- } & 15 & 1 & 50\end{array}$ |
| Ulex Euroæpa (Furze, Gorse or Whin) | 10 |
| Ulmus campestris (Common Elm) | $15 \quad 125$ |
| americana (American White Elm) |  |
| fulva (Slippery Elm) | 25250 |
| Montana (Large-leaved Elm) | 15125 |
| Viburnum acerifolium (Dockmackie) | . 10100 |
| dentatum (American Arrow-wood) | . 10100 |
| lantana (Wayfaring Tree) | $10 \quad 100$ |
| Lentago (Sweet Viburnum) | 15 |
| Opulus (Snowball) | 15 1 50 |
| prunifolium (Black H | 1075 |
| Tinus (Laurestinus) |  |
| Vitex agnus-castus (Chaste Tree) | 15 |
| Walnuts. See Juglans. |  |
| Wistaria |  |
| chinensis (Chinese Wistaria) | 40400 |
| chinensis alba(White Chinese Wistaria) | ia) $60 \quad 600$ |
| izyphus sativa (Cultivated Jujub | 20 |

## FRUIT SEEDS



## SEEDS OF HEDGE PLANTS

For Prices, see under head of Tree Seeds
Arborvitæ, American.... Thuja occidentalis.
Barberry, Common..... Berberis vulgaris.
Purple-leaved........... Berberis folio-purpurea.
Japanese............. Genista scoparia.
Broom, Scotch........... Rhamnus Cathartica.
Buckthorn............. Ulex Europæa.
Furze, or Gorse. ........ Crataegus Oxyacantha.
Hawthorn..............
Locust, Honey .......... . . Gleditschia triacanthos.
Yellow............. Rinia pseudacacia.
Norway Spruce....... Picea excelsa.
Osage Orange......... Maclura aurantiaca.
Privet, Japan or Calif... Ligustrum Japonicum
Common Evergreen.... Ligustrum vulgare.

Sheepberry (Black Haw) Viburnum prunifolium.

## FLOWER SEEDS

Practical Directions for Culture, Treatment, etc.

HARDY ANNUALS (hA). -Sow in April or May, according to the latitude, in shallow boxes or pots placed in a warm window, a hotbed, or, if possible, in a greenhouse. A second sowing ought to be made from two to four weeks after for a succession, as well as to provide against failure the first time. For sowing seeds in there is nothing better than shallow boxes from 2 to 3 inches deep, and of any convenient size. The most suitable soil for all the smaller kinds is a very fine, rich, sandy loam. That from old hotbeds is excellent, or sods from an old pasture piled up and allowed to rot for two or three years and then mixed with a little old stable manure and sand. After the seeds are up, care must be taken to give them plenty of air and moisture, yet not too much water, or they will "damp off." When the young plants are well out of the seed-leaf, they must be transplanted to new boxes. If pots 2 inches or more in diameter can be had, set out from three to a dozen or more of the young seedlings along the edges of the pot, so that as soon as the ground is warm enough they may be easily turned out and planted singly, as by that time they will have made good roots. When pots cannot be had, boxes, tin cans, etc., may be substituted.

A common mistake in sowing flower, as well as other seeds, is covering too deep. As a general rule, cover only to the depth of the thickness of the seeds; or, with medium-sized seeds, like Balsams, Zinnias, etc., half an inch or so is none too much. Such fine seeds as Portulacas need only to be pressed into the soil with a piece of board or the palm of the hand. Always press the earth down firmly after sowing all flower seeds, else there is danger of their drying up before the roots can get firm hold of the soil. Seeds of the hardier Annuals may be sown where they are to grow; but, as a rule, it is preferable to transplant, as the plants are generally stronger and stand the drought better. During very dry weather, and when the seedlings are first set out, they should be watered frequently. Provide some support for all such Annuals as require it.

The weeds should be kept down and the ground loosened often, so that the plants will receive the full benefit of the rains and dews, which they will not if the ground is allowed to become hard and baked.

Seeds of Biennials and some Hardy Annuals may be sown in July and August in the open and in September in boxes and placed in coldframes. They will make strong plants by spring and flower early. Do not put on the sashes until heavy rains and frosts begin, and then always remove during the day whenever the temperature is above freezing in winter.

HARDY BIENNIALS (hB) and PERENNIALS (hP). These require the same treatment as the Hardy Annuals. In addition to the above, both Hardy Biennials and Perennials may be sown in the open border from July to September; for, if not sown until spring, the seeds of many Perennials require several months, and some even as long as two years before they germinate. In this case, it is a good plan, at the commencement of frost, to cover them lightly with straw, leaves or any dry litter, in order to afford some protection from the extreme severity of the winter. As soon as the frost is out in the spring, remove the covering and loosen the surface around the plants, which when large enough may be transplanted to the flower-garden where they are to remain. The seeds of some species of Hardy Perennials often lie in the ground for six or eight months before germinating, so that patience with them is often unexpectedly rewarded.

HALF-HARDY ANNUALS (hhA). -These may be sown in shallow boxes, pots, or a hotbed, as directed for Hardy Annuals. They may be sown thus at any time after the middle of April, as the hotbed will be sufficient protection; but it is best to cover the glass with a mat or straw at night until danger of frost is past. In the day, give all the air possible. After the end of May, sow in the border, like Hardy Annuals.

HALF-HARDY BIENNIALS (hhB) and HALF-HARDY PERENNIALS (hhP) require the same treatment. Though plants and their bloom are greatly forwarded by sowing the seeds early in boxes under cover, it may be stated that nearly all kinds of Hardy and Half-Hardy flower seeds may be sown in the open border in a warm and sunny spot as soon as the soil has become dry and warm; so that those who have no glass frames or greenhouses need not be without flowers. They can have them, but it will be later.

TENDER ANNUALS, BIENNIALS and PERENNIALS.-The best method to obtain an early bloom of the Tender Annuals ( tA ), and to insure strength to the plants, is to sow the seeds in boxes or pots in March, placing them in a warm greenhouse or plunging in a moderate hotbed carefully protecting them from the cold, shading from the midday sun, and watering with a fine rose. The seed should be sown in a very light, sandy compost, and the pots well drained by placing broken pots or bits of sod in the bottom. The finer seeds must not be covered more than an eighth of an inch deep and the soil pressed down closely over them. Water frequently, particularly if the house or hotbed is very warm. As soon as the plants are out of the seed-leaf, transplant them into shallow boxes or small pots, and when they have acquired sufficient strength, transplant into the flower-beds; not, however, before the middle of May.

GREENHOUSE SEEDS (g) should be sown as directed for Tender Annuals, in pans, pots or shallow boxes and be kept in the house, carefully watched, slightly watered occasionally, and sheltered from the hot sun till strong enough to transplant. Most varieties may be sown at any season of the year.

The smaller seeds of Greenhouse Plants are sometimes difficult to make germinate unless great care be
taken in the mode of sowing. Hence, the supposition arises that the seed itself is not good, whereas the fault is not in the seed, but in the treatment. Fine seeds of this description should be sown in leaf-mold or peat, with some fine sand added to it; press firmly down in the seed-pan or pot, and make perfectly level at the top, so that the mold may not afterward sink materially with watering. Sow the seed very thinly and cover very lughtly with a little compost or with silver sand. Success is more certain if a pane of glass is placed over the pan or box till the plants have appeared, when it should be removed. By this method the difficulty of starting fine seeds will be removed As soon as the young plants have two leaves, they should be transplanted into similar compost in another pan or box. To do this, do not pull them out of the seedpan, but break up the soil by running a stick or trowel under it, when the plants can be taken out with good roots. After transplanting, they should be kept in a shady part of the greenhouse for a few days, and watered very sparingly.

There are many minute plants from the finer seeds killed by drenching with water while very young. One way to avoid this is to give it to them by dipping a clothes-brush in water, shaking off the greater part from the brush, and then (holding the brush over the seed-pan) drawing the hand over the bristles several times; this will cause the water to be thrown on the young plants almost like dew. In the first stage of their existence, plants require moisture in a minute quantity, often repeated, and not in such large quantities as to saturate the soil in which they are growing.

Primula Sinensis.-Sow the seeds in drills in a light, rich soil, in shallow boxes, at any time from the middle of March to the middle of May; the earliest-sown seed will naturally produce the earliest bloom. Cover the seeds about an eighth of an inch, and press the soil on them with a board or the bottom of a pot. Water moderately, avoid forcing the seed, and keep the young plants away from drip. The boxes may be placed in the greenhouse or out-of-doors in a frame. As soon as the plants are well out of the seed-leaf, transplant them singly into 2 - or $21 / 2$-inch pots, using a light, rich soil. The object now is to make good, stocky plants, and they must, therefore, be repotted as often as the pots become tolerably filled with roots, until they are in 5 - or 6 -inch pots, when they may be allowed to flower. Previous to this, any flower-stalks that appear must be pinched out. In a suitable place, the plants will do better out-of-doors during summer. The plants will bloom continuously during the winter in either the greenhouse or a well-lighted room, not too warm; they should not be moved about often.

Cineraria.-This is a rather difficult plant to grow if its requirements are not understood. The mistake generally made is in growing it in a warm house instead of a cool one. The seed should be started in the greenhouse. For winter blooming, sow in April and May, in shallow boxes, in fine soil; drop the seed in shallow drills, cover, and press the earth rather firmly with a piece of board or the bottom of a pot. Set the box where it will get the morning sun, but be free from drip; water moderately and carefully. The treatment of seedlings should be similar to that given to Primula Sinensis. As soon as the plants are out of the seed-leaf, transplant singly into small pots, in a rich soil with some vegetable mold in it. Repot as often as the pots become moderately filled with roots, or sufficiently often to prevent the roots from becoming pot-bound. If specimen plants are wanted, the repotting should be continued until the plants are in pots from 8 to io inches in diameter. The last two pottings should be liberal ones, and drainage well provided for, as the plants will need copious watering. When the flower-stalks appear, manure water may be used once or twice a week. Aphis and red spider are to be guarded against; this is best done by frequent syringings or sprinklings overhead. The plants will do best during the summer out-of-doors, in some place where they will not get too much sun, and be free from the drip of trees. In the fall they should be placed in a cool greenhouse, where the temperature can be kept low and the air moist.

Calceolaria.-The seeds are very small, and should be sown on the surface of shallow boxes filled with a light, sandy soil which has been sifted. Sow moderately thick in rows on the surface and cover very lightly with sifted sphagnum moss, cocoanut waste, or very light soil. Press the soil firmly on the seed. The watering should be done carefully; an atomizer or brush is best. To retain the moisture, the box may be covered with panes of glass, which must be removed as soon as the plants appear however. The box should have plenty of light, but not much sun. As soon as the plants can be handled transplant singly into pots 2 to $21 / 2$ inches in diameter. The soil should be light and rich, and vegetable mold is an excellent addition. Repot as aften as the pots are fairly filled with roots, and continue the repotting, if fine flowers are wanted, till the plants are in 8 -inch pots. If the plants become root-bound, they are apt to run prematurely into flower. Water regularly and abundantly to prevent drooping. As the pots increase in size, drainage must be supplied to carry off the surplus water. Place in a cool greenhouse in the winter, and keep the pots apart to prevent the leaves from touching.

Pansy.-For spring blooming, the seed should be sown in August, September and October, in a coldframe with a southern aspect. Plenty of air and light is essential During mild weather the sashes should be removed; when it is frosty, coverings are preferable to artificial heat. If wanted for winter bloom, sow in Juiy and transplant in beds or benches near the glass in the greenhouse in a low and even temperature. The more expensive sorts and mixtures produce the largest and finest flowers.

Petunias.-Fill shallow boxes with fine, light soil, say an even mixture of leaf-mould and sand, and wet thoroughly by pouring on boiling water, which kills insects and heats the soil When the soil has cooled sufficiently, but is still warm, sow the seeds very thinly in the boxes, so that the plants may be inch apart; cover the seeds very slightly with sifted sand, and place slate or glass on top of the boxes If the white root-points of germination appear before the leaves, sift on more sand. replace the slate, and watch closely When the small leaves appear, remove slate and give plenty of light, to produce stocky plants. The soil may now need water, which should be applied very gently Later, the larger plants may be transpianted into other boxes oi pots. As the weakest plants frequently give the finest blossoms, every plant should be preserved until the blossoms appear. For the magnificent large flowers the more expensive sorts should be ordered


VARIOUS TYPES OF ASTERS

# Selected List of Flower Seeds 

Our Complete List of Flower Seeds begins on page 99

## ASTER <br> (Half-hardy Annual)

The Aster is of easy culture and very popular. Plants from seed sown in the open ground in May bloom finely in September and October. For July and August flowers, sow in March or April in coldframe, spent hotbed, or pots or boxes in the house. Cover the seeds about half an inch deep with rich, light soil, and when the plants have three or four leaves, transplant about 18 inches apart each way into well-prepared beds. Manures too fresh or used in too large quantities sometimes induce disease in Asters. When used, they should be thoroughly well decayed and mixed with the soil. Small quantities of unslaked lime or fresh wood-ashes stirred into the surface of the Aster beds form good tonics for the plants and keep disease and insects from the roots. One of the best annuals for cut-flowers.

## D WARF CHRYSANTHEMUM - FLOWERED.

Grows 10 or 12 in . high; large, chrysanthemum-like flowers.

| 2250 | White |
| :---: | :---: |
| 2251 | Scarlet |
| 2252 | Dark Blue |
| 2253 | Light Blue |
| 2254 | Carmine |
| 2255 | Rose |
| 2260 | Mixed |

TRUFFAUT'S PÆONY PERFECTION. Grows stiffly erect and about 18 inches tall. Remarkable for the brilliant colors of its great incurved flowers.

2265 Snow-White
pkt., 10
2266 Apple Blossom 10
2268 Crimson . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
2270 Scarlet . . . . . . . . . . . . . . . . . . . . . . . 10
2271 Light Blue
2272 Blood-Red
oz., \$I.25. IO
DWARF NON PLUS ULTRA. Beautiful class; 6 inches high; fine for borders.

| 2275 | White |
| :---: | :---: |
| 2276 | Rose |
| 2278 | Crimson |
| 2279 | Dark Blue |
| 2280 | Mixed |

VICTORIA, Dwarf. Plants bear from 10 to 20 beautifully reflexed flowers in pyramids about 18 inches high. The best sort for pot culture.

| 2281 | White |
| :---: | :---: |
| 2282 | Rose |
| 2283 | Light Blue |
| 2285 | Dark Blue |
| 2286 | Dark Scarlet |
| 2287 | Mixed |

VICTORIA, Tall. Large flowers, imbricated petals. 2288 Purity. White .......................... Io
2289 Daybreak. Rosy flesh.
..... IO
2290 White
10
2291 Rose
2293 Dark Scarlet
2294 Light Blue
2295 Peach Blossom
2296 Dark Blue
2297 Mixed
Oz., \$2 10
COMET. Outer petals wavily reflexed, centering in a whorl of shorter curled and twisted ones; forms flowers of extraordinary size and beauty.

2298 Rose
pkt., 10
2299 Carmine
10
2300 Light Blue . . . . . . . . . . . . . . . . . . . . . 10
2301 Dark Blue
2302 Snow-White
10
2302 Snow-White ...................... . . . . 10
2303 Peach Blossom ................... 10
2304 Crimson
2306 Mixed . . . . . . . . . . . . . oz., \$1.75 . . 10
2308 Giant White. . . . . . . . . . . . . . . . . . . 10


Comet Aster, continued

$$
23 \text { II Giant Light Blue . . . . . . . . . . . pkt., } 10
$$

2312 " Dark Blue ................ 10
2313 " Crimson ................... 10
2314 " 4 Sulphur-Yellow ............ 10
2316 " Mixed.............oz., \$1.25.. IO
QUEEN OF THE MARKET. The best early Aster. Of graceful, spreading habit. Height. I $1 / 2$ feet.

2329 Violet-Red . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10
2330 Crimson . . . . . . . . . . . . . . . . . . . . . . 10
2331 Scarlet . . . . . . . . . . . . . . . . . . . . . . . 10
2332 Rose ................................. . . . . . 10
2333 Dark Blue . . . . . . . . . . . . . . . . . . . 10
2334 Light Blue . . . . . . . . . . . . . . . . . . . . . . . . 10
2335 Lavender . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
2336 Mixed. . . . . . . . . . . . . . . . oz., 75C. . . 10
BALL, or JEWEL. Flowers long-stemmed, quite round: desirable for cutting. Dwarf; free-flowering.

2348 White .................................... 10
2349 Apple Blossom . . . . . . . . . . . . . . . . 10
2350 Crimson . . . . . . . . . . . . . . . . . . . . . 10
2351 Dark Blue . . . . . . . . . . . . . . . . . . 10
2352 Light Blue . . . . . . . . . . . . . . . . . . . . 10
2353 Mixed. . . . . . . . . . . . . . oz., \$1.75 . . 10
BRANCHING. Forms broad bushes, with large, long-petaled flowers graceful and feathery in effect.

2353 R Rose .......................................... 10
2354 Crimson . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10
2355 Pink . . . . . . . . . . . . . . . . . . . . . . . . . 10
2356 White . . . . . . . . . . . . . . . . . . . . . . . . 10
2357 Purple . . . . . . . . . . . . . . . . . . . . . . . . 10
2358 Lavender . . . . . . . . . . . . . . . . . . . . . . 10
2359 Mixed . . . . ...................... 75c... 10
2360 Branching Comet, White ....... Io
2361 " " Pink........ 10
$\begin{array}{llll}2362 & \text { " } & \text { " Lavender .... IO } \\ 20 & \text { " }\end{array}$
2363 " " Mixed.oz.,\$I IO
OSTRICH PLUME. Splendid class; fine for cutting.
2364 Dark Blue. . . . . . . . . . . . . . . . . . pkt., 10
2365 White . . . . . . . . . . . . . . . . . . . . . . . . 10
2366 Rose . . . . . . . . . . . . . . . . . . . . . . . . . . 10
2367 Mixed. . . . . . . . . . . . . . . . . . oz., \$I . . IO
HOHENZOLLERN. Valuable for cutting.
2368 White . . . . . . . . . . . . . . . . . . . . . . . . . 10
2369 Rose . . . . . . . . . . . . . . . . . . . . . . . . . . . 10
2370 Azure-Blue . . . . . . . . . . . . . . . . . . . . 10
APOLLO. New Dwarf class.
2372 Violet
IO
RAY. Fine for cutting.
2375 White, 2376 Rose, 2377 Blue

$$
\text { each, pkt., } 10
$$

CHRISTMAS TREE. Very fine class.


## VARIOUS ASTERS



2392 Triumph. White. . . . . . . . . . . . . . . . pkt., 10
2394 Snowball. Pure white .................. 10
2396 Mixed German Quilled .....oz., 50c... 5
2398 " Single Annual . . . . . . . . . . . . . . . 10
2400 " Perennial .............. . . . . . . . . . . 10

## COLLECTIONS OF CHOICE ASTERS

These collections are put up by the famous German Aster-growers, and they contain only seed saved from the very finest plants. In each collection the colors are separate, the collection of 24 Victoria Prize, for instance, containing one packet each of 24 separate and distinct colors of that class.


## AGERATUM

For strengthening the garden's color forces in blue, no annual is so good as the Ageratum. Though ordinarily used in bedding and borders, in contrast with such plants as geraniums, perillas, etc., the rose, white and blue sorts are exceedingly attractive when mingled with alyssum, candytuft and similar plants. They grow well almost anywhere. The plants are neat, bushy and erect, with a continual profuse clustering of pretty, bush-like flowers throughout the season. The dwarf, blue sorts make fine borders. Sow under glass early in the season, or, later, outdoors in a mellow seed-bed. Seeds sown in August will produce good plants for winter-flowering. Pkt.
 2422 Mexicanum (hA). Parent stock of the hardy annuals below; flowers blue; $11 / 2 \mathrm{ft} \ldots$. . \$0 40 0 0
 2424 ". Dwarf Blue. 9 in.; fine for edgings ........................................ . . . 40
2425 "، "White. Pretty for contrast; 9 in.; fine for edgings ............. 40
2426 " Imperial Dwarf Blue. Excellent for edgings. 9 in. ................... 50
2427 "6 " ${ }^{6}$ " White. Excellent for edgings; 9 in.................... 50
2428 Little Dorrit. 6 inches high, I foot across; flowers azure-blue . . . . . . . . . 75


Aquilegia (see page 68)

2430 Mexicanum Swanley Blue. A fine,
large-flowered sort; Ift. 50

243 I ". | Blue Perfection. Very fine |
| :---: |
| dwarf; 9 in.; splendid. . 75 | 2432 " Princess Victoria Louise. Dwarf light blue; white center 75

## ALYSSUM

For borders, edgings, baskets, pots, rockwork and for cutting, we recommend a liberal use of this dainty little flower. In borders, sow thickly so as to form masses, and quite early in spring or even the previous autumn. For winter bloom, sow late in August, and thin the seedlings to about a dozen for a good-sized basket. Cut back after the first flowers fade and others will come.
2440 Maritimum (Sweet Alyssum) (hA). Fragrant white flowers all summer

244 I " compactum, Little Gem. Grows erect; 6 in. . . oz., 40 c ......... Thorburn's Bouquet. Very dwarf and compact; best for pots and borders: 3 in.
procumbens, White Carpet. Of trailing habit; flowers profusely. oz., $40 \mathrm{c} . \mathrm{F}$
2448 saxatile compactum (Gold Dust) (hP). Single plants easily cover a square foot in a year, and produce many hundreds of bright yellow flower heads. Grayish foliage; ift. .oz., $50 \mathrm{c} .$. 2450 argenteum. Similar to the above, but dwarfer; oż., 6oc.

## AQUILEGIA (Columbine)

## (Hardy Perennials)

A most desirable border plant in all its many varieties. It forms large clumps, blooms early, long and abundantly, is quite hardy useful for cutting and elegant in habit. Sow seed in the open ground in spring, preferably where the plants are to grow, and thin to about a foot apart. They may also be sown in the fall for flowering the following season. They thrive well with ordinary garden culture, but such rare sorts as $A$. carulea and $A$. chrysantha do best in partially shaded, well-drained nooks. Few hardy perennials are so easily grown from seed.
2453 Canadensis. Scarlet and yellow; very fine . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . pkt., 10
2456 caryophylloides. Oddly striped with red and white; $11 / 2 \mathrm{ft}$.
10
2458 chrysantha. Flowers large, long-spurred, canary-colored; $3 \mathrm{ft} . . \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$. ............................... 10
2460 corrulea (Rocky Mountain Blue Columbine). One of the most beautiful of our native American flowers. Sepals deep blue, petals white; 3 ft .

15
2461 "hybrida. Large-flowered, long-spurred hybrid........................................................ . . . . . . . . 5
2463 Jaetschaui. Large-flowered yellow; long, red spurs. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10
2464 flabellata nana alba. White flowers; very early; Ift . ......................................... 10
2465 glandul- sa vera. One of the handsomest hardy perennials in cultivation; stems 2 feet high, with sometimes 50 to 80 blossoms over 3 inches

2468 in diameter, of the deepest blue, with pure white corolla; a splendid flower


2470 Skinneri (Mexican Columbine). Very handsome and quite distinct; spurs and sepals long, crimson and light green; 3 ft .
2471 Veitch's Long-spurred Varieties, Mixed ...... I5
2472 vulgaris, Double White. Showy and lasting: 2 ft .
2473
2474
"، Sin Mixed. Best colors .oz., 30c... 5
Single Mixed. Many good sorts...
oz., $30 c$...
Collection of Aquilegia, including 12 choice varieties

## BALSAM

(Impatiens Balsamina. hha)

A native of India, the garden Balsam loves hot sun, rich soil and plenty of water. The young plants are quick, sure growers and, from seed sown in the open ground in May, soon form handsome bushes thickly massed with large, rose-like flowers. Transplanting two or three times has a tendency to dwarf the plants into better shape and to make the flowers more double. Balsams are not often given room for perfect development they will easily cover 12 to 18 inches of space each way. For the finest flowers, choice seed is more than usually essential, for cultivation and selection have wrought wonders with this plant. We offer only the finest double sorts.

|  | , |  | Oz. | Pkt. |
| :---: | :---: | :---: | :---: | :---: |
| 2480 | Double | White | \$0 60 | \$0 05 |
| 2481 | " | Peach Blossom | 60 | 5 |
| 2482 | " | Carmine | 60 | 5 |
| 2484 | " | Lavender | 60 | 5 |
| 2486 | " | Rose | 60 |  |
| 2487 | " | Bright Scarlet | 60 | 5 |
| 2488 | " | Red, Spotted White. | 60 | 5 |
| 2490 | " | Dark Blood-Red | 60 |  |
| 2492 | " | Pale Yellow | 60 | 5 |

[^5]amellia-flowered White. Flowers of extra size, double and full-centered, with reflexed petals. The most elegant of all Balsams .....oz., $80 \mathrm{c} .$. .

## 2498 Camellia-flowered Mixed. All the best colors.

 oz., 60c. . $\qquad$2500 Finest Double Mixed oz., $40 c$.5
6 varieties Improved Camellia-flowered
12 "Double Rose-flowered. ..... 60

12 " Double Rose-fowered ........................................................ 35

## CALENDULA

Hardy annuals about a foot high. The seed may be sown in the open ground early in spring, and the plants will bloom early in summer, and continue until late in autumn. The flowers exhibit every shade of yellow from ivory to deep orange, are produced in great profusion, and are strongly effective in beds, borders or backgrounds. The dried flowers are sometimes used for flavoring soups and stews.


See, also, Marigold, pages 81 and 82

## CALLIOPSIS

This annual is another of the garden's great forces in yellow, strengthened with rich red-maroons and browns. Sow in the open ground in spring, and, in thinning or transplanting, give the plants plenty of room to spread. Their tall, slender habit makes neat staking and tying necessary. All fine for cutting.

| 2548 | bicolor nana. Ray of gold; 6 to 8 inches. | $\$ \mathrm{Oz}$ | Pkt. <br> \$0 05 |
| :---: | :---: | :---: | :---: |
| 2549 | " marmorata. Maroon and gold; $11 / 2 \mathrm{ft}$ | . 30 | 5 |
| 2550 | hybrida superba. Very showy hybrids in great variety | 50 | 5 |
| 2551 |  | 30 | 5 |
| 2552 | cardaminifolia. Red and yellow; $11 / 2 \mathrm{ft}$ | 30 | 5 |
| 2553 | Drummondii (Golden Wave). Gold and brown; $\mathrm{Ift}$. | - 30 | 5 |
| 2554 | elegans picta. Yellow and brown; 2 ft . | - 30 | 5 |
| 2555 | bicolor hybrida fi. pl. Mixed; I ft. | 30 | 5 |
| 2556 | Mixed Annual Sorts | 25 | 5 |
|  | Collection of Calliopsis, including io varieties. |  | 40 |

## COREOPSIS

2560 grandiflora (hP). Large flowers of rich yellow; 2 ft . One of the best yellow flowers for cutting. oz., 75c..
2563 California Sunbeams (hP). Flowers very large, in a great variety of beautiful forms and various shades of yellow and brown; Ift. oz., 50c...

## CAMPANULA

## (Canterbury Bells)

These fine old plants are rich in color, profuse in bloom, and of easy culture. For outdoor effects, when planted in quantity, they are glorious, and finest fullbloom specimens of such varieties as $C$. calycanthema can be transplanted to pots for house decoration by soaking the soil about them with water and lifting with a ball of earth. Sow seed of biennials outdoors early in July and thin or transplant to temporary quarters until October. Transplant, then, 6 or 8 inches apart, in a coldframe, where they will make large plants by spring, and are as easily cared for as pansies. The old practice of covering Canterbury Bells with leaves through winter is not satisfactory. Transplant in spring, 18 to 20 inches apart, in beds where they are to bloom. In June and July they flower most profusely, and are in fine form a long time. They also make beautiful pot-plants for Easter. If sown early in good soil, the hardy perennials will bloom early the next year. All the varieties like a rich, sandy soil with good drainage.


CAMPANULA
J. M. THORBURN \& CO., 33 BARCLAY ST., NEW YORK

CAMPANULA, continuedand of a beautiful blue; blooms in late summer and autumn.

26 I5 pyramidalis alba. A white-flowered variety of the above
26 I6 grandiflora Mariesii (hP). A fine,


CELOSIA, OSTRICH FEATHER (see page 72;
dwarf, dark blue variety, growing I ft. high
2617 grandiflora Mariesii macranthum (hP). Dwarf habit; rarely exceeds 3 feet in height; intense bright blue flowers, 3 to 5 inches across; lives eight to ten years. .
2618 Vidali (gP). White; very floriferous; 2 ft .
Collection of Campanula, including 12 varieties choicest perennial sorts

## CANDYTUFT

(Iberis)

The Candytufts are among our best flowers for edgings, bedding, massing or rockeries, and for cutting. Several of the varieties are fragrant, and all are profuse in bloom. Sow outdoors in April, and thin well when the plants grow about an inch. Sow again in a month, and late in July for fall flowers. Give rich soil and water freely.
2624 affinis, Dwarf (hA). Neat and pretty bedder; 6 in. Ift. . . . . . . . . . . . . . . oz., 25C. . .
oz., 25c... pkt.,
2625 amara (hA). White; Ift. oz., 2Oc..
2626 coronaria (Rocket Candytuft) (hA). Of candelabra form; flowers in upright spikes . . . . . . oz., 20c. . .
2627 coronaria, Empress. Especially attractive; 1 ft. . . . . . . oz., 25c... coronaria, Little Prince. Very large heads of pure white flowers. Fine for border and pots; 6 in. 07.. 75 C ... 10

2630 coronaria, Giant Hyacinth-flowered. White
oz., 40c.
5
odorata (hA). Small, white, fragrant flowers ......oz., 20c..
umbellata (hA). Purple-flowered.


CARNATIONS
CANDYTUFT, continued
2635 umbellata carnea. Flesh-colored; I ft. ..... $\begin{array}{cc}\text { Oz. } & \text { Pkt. } \\ \text { \$0 } & \text { \$0 } 05\end{array}$
2636 " Dunnetti. Dark crimson; i ft. ..... 5
25
25
2637 lilacina. Lilac; Ift. ..... 25
2638 carminea. Bright carmine; I ft. ..... 50
2640 "" Queen of Italy. Dwarf, erect; fine, pink flowers; 6 in ..... 40 Dwarf Hybrids. Mixed colors. Neat, pretty and long in bloom; 6 in.
64
64 ..... 5 ..... 55
2648 Mixed Annual Sorts ..... 5
PERENNIAL CANDYTUFT. These are shrubby, hardy, evergreen plants, and make a magnificent showing the second year from seed. They bloom very early, cushioning rock ledges, borders, or un- sightly rough places with banks of bloom. Sow outdoors in spring or fall in any sunny place.
2656 Sempervirens. The white flowers remain fresh nearly a month; 1 ft . ..... 10
2658 Gibraltarica. Beautiful blush-white; I ft ..... IO
Collection of Candytuft, including 6 varieties choicest annual sorts ..... 30

## CARNATION

## (Dianthus Caryophyllus)

The splendid Carnation of the florist is a very interesting plant to grow from seed, and it is not overexacting. Sown under glass in early spring, or later in the open ground, the plants will flower finely the second summer. For latgest, richest flowers, we recommend their culture in pots of rich soil, but with many they are also garden favorites, and grown in this way flowers of good quality may be enjoyed all summer if given plenty of water, good soil and a mulch about their roots. With tall varieties, neat staking and tying is also necessary. Young plants are perfectly hardy outdoors, but when two or three years old they are injured by winter cold, so that sowings should be made every year. The more expensive sorts produce the finest flowers.
MARGARET CARNATIONS are an extra-vigorous race, especially adapted for outdoor culture. They are very neat in habit, and remarkable for their rich profusion of flowers, produced in five months from sowing. For masses of bloom, few plants are finer; they are also very suitable for pots. Grown as annuals from seed sown every spring, they are most satisfactory. Our seed of these varieties is grown exclusively in the famous Chabaud Garden of Carnations, Provence, France.
" " Yellow. A clear, soft shade; $11 / 2 \mathrm{ft}$. ..... 25
2673 " Tall Mixed. 2 ft ..... oz., \$1. . 10
2674 Half Dwarf Mixed. $11 / 2 \mathrm{ft}$. ..... oz., \$i.25. . 10
2678 Giant Margaret. Extra large and perfect flowering, in a rich variety of colors, including yellow80 per cent of the flowers generally come double; 1 ft .25

## CARNATIONS, continued

PERPETUAL CARNATIONS. This race has large, elegantly formed flowers, continually abloom upon closely branched, symmetrical , sants, often called, from their neat habit, "Tree Carnations."
$268+$ Chabaud Perpetual Double. Mixed, yellow, red, white, etc.; $11 / 2 \mathrm{ft}$. Blooms in 7 months. pkt., 25 2686 " " Choicest Mixed................................................... 25
2687 Dwarf Perpetual (a tige de fer). i ft. ..... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 50
2688 Marie Chaubaud. Pure canary-yellow; the most beautiful and most fragrant yellow ........ 50
2689 Comtesse de Paris. Very dwarf; yellow; comes true from seed . . . . . . . . . . . . . . . . . . . . . . . . . . 50
2690 Jeanne Dionis. Enormous flowers of the purest white and most perfect form ................ 50
2692 Sparkling (Etincelant). Bright glittering red of surpassing richness.......................... . . 50
2693 Giant Perpetual White. Very large, perfectly double; flowers in seven months after sowing. . 50
2694 " " Yellow. Eighty per cent comes true to color; creamy to golden yellow..... 50
2695 " " Red. Beautiful shade; large flowers . ......................................... 50
2696 " " Fine Mixed. Enormous flowers, perfectly double; splendid colors ......... 50
BORDER CARNATIONS, ETC. We invite attention to the splendid collection below-
2704 Red Grenadine, Double. Brilliant scarlet; 2 ft . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 25
2705 Enfant de Nice (Improved Giant-flowered). All colors. Flowers in six months from seed ...... 25
2706 Early Dwarf Vienna, Double Mixed. Fine for garden culture and for cutting; ift. ........ io
2707 " " " " White. Very fine; always comes true white ................... 10
2708 Fine Double Mixed. Many colors: 2 ft . .............. Io
2710 Double Mixed
oz., \$1.25.. 5


CENTAUREA

CHOICE COLLECTIONS OF CARNA IIONS 50 varieties Carnation and Picotee . \$300

| 25 | $"$ | $"$ | $"$ | $"$ | $\ldots$ | I | 50 |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 18 | $"$ | $"$ | $"$ | $"$ | $\ldots$ | 1 | 25 |
| 12 | $"$ | $"$ | $"$ | $"$ | . | 1 | 00 |
| 6 | $"$ | $"$ | $"$ | $"$ | $\ldots$ |  | 65 |

## CELOSIA PLUMOSA

## ( $t A$ )

Beautiful foliage plants blooming in late summer and autumn, and producing large, showy plumes, curled and curved, very much resembling ostrich feathers.

## 2715 Ostrich Feather, Crimson ..... IO 2718 " $"$ Orange........ IO

For other Celosias, see page 103, and for Cockscomb (Celosia cristata) see page 75

## CENTAUREA

C. Cyanus, the popular Cornflower, is also known as "Blue Bottle," "Ragged Sailor," "Kaiser Blumen," and, sometimes, as "Bachelor's Button." These are bright-flowered plants of hardiest nature and simplest culture, yet esteemed among the most attractive and graceful of all the old-fashioned flowers. When placed in water, the flowers increase in size.
PERENNIAL FLOWERING. A dry, sandy soil of moderate fertility seems to suit them best.
2724 macrocephala. Flower-heads large, showy, bright yellow; 3 ft .
.pkt.,
PERENNIAL SILVER-LEAVED. These are used for borders or edgings, and thrive anywhere. Flowers white, leaves grayish; height I ft.; half-hardy.
2728 candidissima ..... oz., 75c.. . 102729 Clementei...

$$
. \mathrm{oz} ., \$ \mathrm{I} . . \mathrm{IO}
$$2730 gymnocarpa.oz., 75 c .10

HARDY ANNUALS. These flower finest in full sun and thin soil. Sow in the open ground in spring.
273I Americana. Flowers lilac-purple; 3 ft . ..... oz., 50c... 10

|  | CENTAUREA, continued imperialis- |
| :---: | :---: |
| 2732 | White. . . . . ) Very large- $(\ldots . . .$. pkt., |
| 2733 | Lilac. . . . . . . flowered |
| 2734 | Yellow .... $\int$ hardy |
| 2735 | Mixed . . . . . . class |
| 2737 | odorata, Chameleon. Yellow and rose; fragrant; superb |
| 2738 | odorata Margaritæ. Pure white, $21 / 2$ inches across, exquisitely laciniated and delightfully scented; forms stocky, well-budded little bushes. A garden treasure; $11 / 2 \mathrm{ft}$. |
| 2739 | moschata (Purple Sweet Sultan) |
| 2740 | " alba (White Sweet Sultan) |
| 2741 | Mixed Sweet Sultan |
| 2742 | suaveolens (Yellow Sweet Sultan). Fine.. |
| 2743 | Cyanus (Cornflower), Blue........... |
| 2744 | Emperor William. Dark blue; 11/2 ft. . . . . . . . . . . oz., 25 c . |
| 2744 a | Rose. Beautiful, distinct shade; $11 / 2 \mathrm{ft}$. <br> oz., 25 c. |
| 2745 | Victoria, Dwarf Compact. Only 9 inches high; for pots and edgings; azureblue; very fine |
| 2746 | nana compacta. Another charming dwarf. All colors mixed; 9 in. $\qquad$ |
| 2748 | Mixed . . . . . . .oz., 25 c . |
| 2750 | Double Mixed. Odd and |

Collection of 6 varieties of C. Cyanus (Cornflower)

## CHRYSANTHEMUM

Do not confound these annuals with the winterflowering sorts of the florists. They bloom profusely from early summer until frost, and, when grown in large beds or masses, their bright colors make a splendid show. The plants can be brought into bloom early by sowing the seed in frames or windowboxes, and afterwards transplanting to the garden; or seed may be sown where the plants are to flower, if the seedlings are thinned to 8 or 10 inches apart. A little pinching back in early growth makes the plants bushy and shapely. All are fine for cutflowers. Average height, I to $11 / 2 \mathrm{ft}$. For the magnificent large-flowered sorts the more expensive packets should be ordered.



## CHRYSANTHEMUM, continued

Tricolor, Single and Double Mixed ..... \$o 40
Pkt. Double Hybrid Mixed ..... 10
multicaule. An exceptionally fine little bedder; flowers yellow; 3 in ..... 5
segetum, Morning Star. Large yellow flowers; excellent for cutting ..... 5
Helios, Evening Star. Fine for cutting; pure golden yellow flowers of gigantic size 5
inodorum, Double (hP). Pretty white flowers; fine for cutting; Ift. ..... 10
frutescens (Paris Daisy, or Marguerite) (hP). Beautiful for cutting and pot culture; long-stemmedsingle white flowers with golden center10
Collections, including I2 varieties Chrysanthemum, Annual ..... 40
6 " ..... 30

PERENNIAL VARIETIES. This section includes the large-flowered sorts, and also the pretty, hardy Pompons that make bright masses of color in our gardens long after heavy frosts have cut down other flowers. We wish to make quite clear the distinction between this class and the Annual Chrysanthemums described above, that, as has sometimes happened heretofore, customers may not order seed of the summer-blooming garden varieties expecting them to yield the grand show flowers of late fall. The great blooms of the exhibitions are obtained from cuttings carefully cultivated. For ordinary culture and room decoration, plants pinched back to form a number of branches, and holding from five to ten flowers are satisfactory. Average height of show kinds, 3 feet.
2810 Indicum grandiflorum. Will produce superb flowers of different types and colors....... pkt., 25

cosmos

## CLARKIA

These are among the prettiest native hardy annuals that come to us from beyond the Rocky Mountains. They bloom so freely and have flowers of such various bright colors that a bed of them in full bloom is a very beautiful sight. They are useful, too, for hanging baskets, for vases and as edging plants. Sow outdoors in early spring and grow in partial shade. They bloom through midsummer to late autumn. Average height, $\mathrm{I} 1 / 2 \mathrm{ft}$.

|  |  | Oz . | Pkt. |
| :---: | :---: | :---: | :---: |
| 2822 | elegans rosea. Rose | \$0 30 | \$0 05 |
| 2823 | " " Double. Rose | - 50 | 10 |
| 2824 | alba, Double. White | . 50 | 10 |
| 2825 | Single Mixed | - 30 | 5 |
| 2826 | " Double Mixed | - 30 | 5 |
| 2827 | " Double and Single Mixed. | - 30 | 5 |
| 2828 | pulchella rosea. Rose | . 30 | 5 |
| 283 I | alba. White | - 30 | 5 |
| 2832 | " marginata. White-edged | . 40 | 5 |
| 2834 | White Tom Thumb | . 35 | 5 |
| 2836 | " Mixed | . 30 | 5 |

## COCKSCOMB

(Celosia cristata. hha)
We prize and plant the Cockscombs as an odd and picturesque decorative feature of the garden. The bright red and crimson varieties are most effective, both in gardens and in winter bouquets, for which they are cut before fully ripe and dried in the house. The dwarf varieties make novel and attractive borders; the tall ones form striking groups. Transplanting into rich soil about the time the combs begin to form makes the flower-heads much larger. They are bright from midsummer until frost.
2850 Japan Crimson. Huge combs, much cut and beruffled ..... pkt., 10
2852 Glasgow Prize. Dark leaves and crimson combs; ift. ..... 10
2856 Dwarf Bright Red. A miniature plant, with enormous combs of intense bright red ..... 10
Yellow ..... Io
2857 " White ..... 10
" Crimson ..... 10
2859
Mixed. Extra-large combs ..... IO

For Celosia plumosa, see page 72, and for other sorts see page 103

## COSMOS

This is one of the notable fall flowers, the specialist's skill having recently added much to its beauty. A strong, tall-growing annual, its bold flowers have yet an exquisite daintiness and airiness, heightened in effect by their foliage-setting of feathery green. It is most effective when planted in broad masses, or long background borders against evergreens or fences. From seed started early in the house or frame, the plants will be 3 or 4 feet high by July, tossing into the air a perfect storm of bright-colored, daisy-like flowers, fine for cutting. If topped when half-grown, the plants will bloom much earlier, the check seeming to induce immediate flowering. We offer only the choice large-flowering strains. To make sure of flowering early, Cosmos should be started indoors and transplanted into dry, sandy, or poor soil, in a sunny situation.Giant Fancy. Flowers often 5 inches wide, and with the petals beautifully fringed.
White ..... 10
2872
10
2873 Red. Deep and dark
IO
2874 Pink. Bright clear shades
5
2876 Mixed. All shades from pure white to deep crimson
15
2882 Klondyke. Orange-colored
2883 Tints of Dawn. Of compact, bushy growth, early-flowering. The handsome, white, circular flowers are delicately flushed with rose around the center ..... 50 ..... 10
2888 Marguerite. Petals deeply and irregularly fringed; in various bright colors ..... 10
2890 New Striped. A charming and distinct new class of flowers with large white centers, and the petals deeply striped with white ..... I5

## DELPHINIUM (Larkspur)

In variety and beauty of its blue tints, which are as numerous as they are charming, no other plant can equal the Delphinium. The brilliant flowers can be seen from a long distance and are strongly effective in beds or masses, in borders, shrubberies, or in combination with white lilies. Ordinarily, the tall sorts are planted among shrubbery, or as a background for dwarfs, which are favorites for bedding. Improvements are continually being made in the size of the flowers, as well as in the length and fullness of the spikes. Some of the species flower both early and late; the season for all can be prolonged by cutting away withered flower-stems. They are sometimes increased by division, but are much more robust when grown from seed. All varieties are easily cultivated and adaptable to many conditions, but in a soil deeply dug and well enriched with fine old manure, their blooms are the finest. They must have plenty of room to grow; $11 / 2$ to 2 feet each way is not too much for the taller sorts.


DELPHINIUM

ANNUAL VARIETIES. These include the Rocket and Hyacinth-flowered, so called from their long, narrow flower-spikes. They bloom best in a rather cool, moist soil. Sow seed in the open border, either in spring or fall, preferably the latter, so that germination may take place very early in the spring. As the seedlings grow, thin them to stand 6 to 18 inches apart, according to variety. The shades of color include light, dark and azure-blue, white, buff, rose, apple-blossom, pink, brickred, red-lilac, dark lilac, violet and fawn. The varieties are seldom kept separate, as they are quite as pretty and convenient for cutting when sown in mixture. Some of these are really hardy biennials, but because they bloom the first season, we treat them as hardy annuals.

## 2904 Ajacis Dwarf Rocket. Finest colors; Oz. Pkt.

 beautiful for bedding; I ft... \$o 30 \$o 052905

## 2906

2908

## 2910

 cardiopetalum. Beautiful blue flowers; I ft..30
2912 Emperor, Branching Rose. This and the next are splendidly bright and showy, often showing 40 to 50 erects pikes of flowers, 2 ft .
2913 Emperor, Branching White. Beautiful for cutting 50
2914 Emperor, Branching Mixed ..... 5
2916 Newport Pink. A rose-colored and verybeautiful free-flowering sort. If sownoutdoors in spring it will bloom by firstof August; 2 ft ..10

PERENNIAL VARIETIES. These are usually taller than the annuals, requiring more space between the plants. If sown in the fall or very early spring, nearly all will bloom the first season. The foliage is clean and pretty; habit strong and neat; flower-spikes long and dazzling. 2918 Barlowi. Large, dark blue flowers; extra fine . pkt., 25 2920 Brunonianum. Lovely blue, musk-scented flowers; very distinct; 3 ft .

cardinale. Orange-scarlet. A California native; 2 ft .
2922 Cashmerianum. Spreading, many - branched; flowers often 2 in . wide; deep purplish blue; $3 \mathrm{ft} .$. .

## CATALOGUE OF HIGH-CLASS SEEDS

## DELPHINIUM, continued

2930 hybridum fl. pl. Finest double sorts in choice colors; a superb mixture; 3 ft..................................pkt., 25
2932 hybridum fl. pl., Burbank's. Wonderful blue shades.
292 Splendid double sorts. Giant-flowered ..... 2525
2933 nudicaule. The only pure bright scarlet. Dwarf and com-pact in growth, with flower stems of fine length; ift.A native of California.25
2934 Zalil (sulphureum). Very beautiful, hardy perennial,with long spikes of yellow flowers.50
COLLECTIONS OF DELPHINIUM
12 varieties Dwarf Rocket ..... \$0 50


## ESCHSCHOLTZIA

## (Commonly called California Poppy)

The state flower of California. An annual, very bright and rich in its pure tints of yellow and orange. The plants average about a foot in height, with silvery foliage, and produce their large, poppylike flowers from early spring until frost. They are most effective when grown in beds of considerable size, over which the seed may be sown broadcast thinly and lightly raked in. These sowings may be made early in spring or late in autumn for earlier germination, blooming the next spring. Useful as a pot-plant and for cut-flowers.
2942 Californica. The so-called California Poppy.


> Carmine King. Carmine-rose; beautiful................................... . . Iо
2945 " canaliculata rosea ..... 10
2946
Burbank's Crimson-flowering. Crimson. Crimson and Gold. Beautiful variations in colors of orange, yellow, rose, and all intermediate shades to vermilion5
crocea. Pure deep orange
crocea. Pure deep orange ..... oz., $30 c$ ..... oz., $30 c$ ..... 5


Foxgloves25
295I  ..... 5
2952 Douglasii. Very pretty yellow variety from California. ..... 5
2954 tenuifolia. Bright yellow; leaves dense and finely cut; ift. ..... 5
2956 maritima. Canary-yellow, with orange center; leaves grayish and beautifully cut ..... 5
2958 Mandarin. Red-gold flowers, orange within and scarlet without ..... 5 ..... oz., 50c..
2960Mixed5

## FORGET-ME-NOT

## (Myosotis)

These dainty elegant little flowers are hardy perennials that love cool, moist soils, and, like pansies, bloom most freely in fall and early spring. They make beautiful, close borders, or edgings, thickly sprinkled with pretty flower-sprays, and will bloom nicely in winter in a cool room or coldframe. Once at home in a garden, they establish themselves by self-seeding. All the varieties are general favorites, Sow in spring in a warm, sunny border. Most varieties bloom freely the first season and profusely the second. Average height, 6 inches.

| 2970 | Myosotis alpestri | pretty trailer, with blue flowers. . . . . . . . . . . . . . . . . . . oz., 60c.. .pkt., 10 |
| :---: | :---: | :---: |
| 2970a |  | Indigo-Blue. Like the above, but with indigo-blue flowers ............ ${ }^{\text {I }} 5$ |
| 2971 | " . " | rosea. Rosy flowers; a pretty contrast for blue and white varieties...... io |
| 2972 | " " |  |
| 2973 | " " | elegantissima. Blue; leaves white-edged; very attractive. . . . . . . . . . . . . 10 |

FORGET-ME-NOT, continued

Myosotis alpestris nana cœrulea. Very dwarf, compact; sky-blue pkt., 10 robusta grandiflora. (Eliza Fonrobert). Grown extensively for cutting. Large sky-blue florets with yellow eye. in large clustersIo
Victoria. Symmetrical and strong-growing; dwarf habit; flowers large, globular, sky-blue, abundant; fine for pots and cutting. ..... 15
"

"
Mixed ..... 10
Star of Love. A distinct, dwarf variety, with large, beautiful blue flowers ..... 15
Azorica. Dark blue, with white eye; Ift. ..... 25
cœelestina. Beautiful light blue; ift ..... 25
dissitiflora. Blooms very early; flowers blue. From Switzerland ..... 10
palustris (True Forget-me-not). Blooms the second year abundantly all season. ..... 10
sylvatica. Blue, with yellow eye; likes dry soil; I to 2 ft . ..... io

## FOXGLOVE

## (Digitalis)

The tall flower-stems of the Foxgloves are particularly handsome when seen growing among shrubbery, or in bold masses along walks or drives. Used as a background for lower plants, they are also very fine. Often the spikes are 2 or 3 feet long and thickly strung with scores of showy, thimble-shaped flowers. Some new sorts rival gloxinias in shadings and markings. Seed may be sown outdoors in spring and the seedlings transplanted where they are to grow, or, preferably to a coldframe, where they make extra-strong plants, that will flower in magnificent spikes the next season. They are most satisfactory when treated as biennials, sowing the seed every year in rich, deep soil and partial shade. Average height, 2 to 3 feet. Easily cultivated. When the center spike begins to fade it should be cut out and the side shoots will, in consequence, grow more vigorously.

$\begin{array}{ll}2998 \text { Purple. Best known ..oz., 30c... pkt., } & 5 \\ 3000 \text { White. Fine and atrractive ....... } & 5\end{array}$ 3001 Large-flowered. Long racemes of bell-shaped yellow blossoms ..... 5
3002 Rose
oz., 25c... 5
3005 Mixed ..... 53008 gloxinoides, White. Very handsomegloxinia-like flowers:very robust; beauti-ful for cutting . . . . . . . 5
3009 " Purple ..... 5
3010
Rose. Bright and showy
Rose. Bright and showyMixed. All the choicecolors .....oz., 30c... 5
3015 maculata superba. Splendid spotted strain oz., 75 c . .3017 monstrosa, Splendid Mixed. Verylarge, bell-shaped flowers of ex-quisite beauty, borne on long spikes;very distinct. 4 ft .10
Collection, including 12 varieties of Foxglove ..... 50

## GAILLARDIA

Showy and free bloomers, flowering profusely all summer. They are good bedders; very beautiful; fine for bouquets or for cutting for house decoration. They do best in a good, light soil and in an open, sunny situation.
3018 Amblyodon (hA). Fine red...pkt., 5 3019 grandiflora maxima (hP). Flowers first season if sown early; yellow. $2 \frac{1}{2} \mathrm{ft}$. . 10

## GODETIA

Choice, free-blooming annuals, with widely opened flowers of satiny texture, and of the most delicate and lovely colors. They are beautiful for solid beds, border lines, for pots, and for growing in shaded places, where so few really fine flowers will flourish. Sow seed in the open border in spring, or in a coldframe, and transplant secdlings to stand about a foot apart in rather thin soil. Fine for cut-flowers. Average height, $\mathrm{I}^{1 / 2} \mathrm{ft}$.
3027 Rosamond. Splendid; large, glossy .pkt., 3029 Lady Satin Rose. Bright carmine; very effective
3030 Fairy Queen. Large, white flowers, with carmine spots
3032 gloriosa. Darkest red; dwarf and compact.
3033 grandiflora maculata. Great white flowers, blotched with carmine
3035 White Pearl. Beautiful glossy white flowers
3036 The Bride. White, with blush spots.
3038 Duchess of Albany. Satiny white.
3039 Lady Albemarle. Dark crimson
compacta (Dwarf)

> Dark crimson

3042 Lindleyana. White and red.
3043 Bijou. Of dwarf, bushy habit; lovely blush color.
3044 Whitneyi. Compact, with superb, rosy flowers, blotched with crimson; elegant potplant ....................
 showy
Mixed
oz., 30c.
Collection of Godetias, including 6 choice varieties $\qquad$

## DOUBLE HOLLYHOCK

## (Althaea rosea)

These stately, old-fashioned perennials are most striking when seen in groups or long rows against evergreen hedges, shrubbery, etc., and, in their turn, form a very fine background for plants of lower growth. Their color-variety is wonderful, ranging from pure white through almost ever conceivable shade of yellow, red and rose to ashen gray and almost black. Although Hollyhocks are very permanent and hardy for the first


DOUBLE HOLLYHOCK winter, it is advisable to sow seed every year, as the flowers on young vigorous plants are much finer than old ones. Sowings should be made in April or May, and not later than June, to flower the next year. In final transplanting, give each seedling a foot or more space each way for development. Average height, 4 feet. Our seed is of magnificent, double varieties, grown from Chaters' celebarated collection, which has revolutionized the popular estimation of the Hollyhock.


## J. M. THORBURN \& CO., 33 BARCLAY ST., NEW YORK

## DOUBLE HOLLYHOCK, continued



## IPOMOEA

(Moonflower. Morning-Glory. Cybress Vine)

Of all our climbers for garden and greenhouse, these are the quickest and most luxuriant in growth, carrying to great height a splendid curtain of leafage, studded, as summer heat comes on, with large, satiny blooms of lovely colors. Ipomœas grow so easily from annual sowings that it is no longer thought necessary to winter-over roots or young cutting plants under glass. The large, horny seeds of some varieties should be soaked in hot water before planting. For early flowers, sow in hotbeds or pots and boxes under glass, and transplant to rich, deep soil in summer quarters as soon as danger of frost is over, when sowings may also be made in the open ground. Nothing finer for porches, trellises, etc.
*These are very hard-seeded, and in order to hasten germination a notch should be filed in the seed before planting.
ANNUAL VARIETIES. From early sowings, these begin to bloom in June and July, and are full of beautiful flowers all the season, often blooming freely until cut down by frost.

3087 " lutea. A yellow-flowered variety. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . oz., 20c... 5
Imperial Japanese. See Japanese Morning-Glory, page 83 .
3090 hederacea grandiflora superba. Rich sky-blue flowers with white margin; $15 \mathrm{ft} . \ldots . .$.
3091 fol. marmoratis Mixed ...................................... 5
3094 Nil. Flowers purple; 15 ft.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
3095 limbata. Violet and white; $5 \mathrm{ft} . .$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . oz.: 20c... . 5
*3097 Mexicana grandiflora alba. The great white Moonflower; i5 ft. ....................... 75c... io
*3098 " " hybrida alba. Flowers very large and numerous; 15 ft. . oz., 75c.. . 10
*3100 bona nox (Good Night, or Evening Glory). Opens large, white flowers in the evening; 15 ft..... 5
3 Ioi Heavenly Blue. The very large clustered flowers of beautiful sky-blue open early in the morning. Unusually distinct and handsome; 10 ft . Sow early.

10
3104 Quamoclit (Cypress Vine: Star Flower). A tender annual, with fine cut leaves and small,
star-shaped flowers. This, the type, is scarlet-flowered; $10 \mathrm{ft} . . . . . . \mathrm{oz}_{\mathrm{o}}, 30 \mathrm{oc} .$. .
3105 " White .................................................... . . . . . . . . . . . . oz., 30 . . . .
3106 Kerberi. A fine scarlet-flowered variety that blooms late . . . . . . . . . . . . oz., 40c.. 5
3108 " Mixed Cypress Vine . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . oz., 3 oc... 5
3 IIo Ivy-leaved Cypress Vine. Pretty leaves that are deeply lobed and fiery orange-scarlet flowers. A hardy annual.
oz., 40c... 5
Collection, including 12 varieties. Annual sorts . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 50
GREENHOUSE CLIMBERS. These handsome vines grow nicely in the open ground, but bloom almost too late to be very useful there, in all except warm climates. Grown in pots, tubs, or greenhouse beds, they flower grandly between October and spring.
3II2 Horsfalliæ. A superb West Indian species of vigorous growth. The rich, thick leafage is beautiful; the flowers a deep glossy rose-purple; 15 ft .

25
3II3 Learii. Very quick and strong in growth, sometimes succeeding admirably outdoors. The flowers are a beautiful violet-blue; 15 ft .
3114 rubro-cœerulea. Bright red; 8 it.
3115 " " alba. White; 8 ft
3116 setosa (Brazilian Morning-Glory). This vine makes an immense, thick growth of great lobed leaves, lighted by a profusion of large rosy flowers, with a sainy pink star in the center. The red pubescent stems and seed-pods add to its attractiveness; 10 to 20 ft .

## KOCHIA (Summer Cypress)

A splendid ornamental annual, growing 2 to $21 / 2$ feet high. The slender-leaved plants are of a cypresslike appearance during summer, changing their light green foliage to carmine and fiery red colorings toward autumn. Forms beautifully decorative bushes on the lawn. (See illustration on page 81.)
3120 trichophila, or trichophylla. An improved strain of $K$. scoparia
pkt., 10

## LOBELIA

The Erinus varieties are charming little plants that bloom very quickly from seed and continue gay with flowers all through the season. For beds, edgings, baskets and pots, we have nothing prettier; their exceedingly clear, cheery colors and generous bloom make them welcome anywhere. Sow outdoors in early spring where the plants are to grow, and thin moderately; or transplant several inches apart in rich, open soil. Some stimulant given when they are in bloom greatly improves the flowers. Almost all are also good winter conservatory plants of trailing habit. The perennial, or tall varieties are handsome, showy plants, found quite effective for backgrounds and grouping.

## ERINUS VARIETIES ( t A ) -

3124 gracilis. Blue; trailing: beautiful for baskets

pkt., 5

3125 speciosa. A favorite blue-flowered edging plant; 6 in. .............................................. 10
3 I26 alba. White flowers . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
3128 kermesina. Crimson . ............................................................................... 10
3129 Lindleyana. Rose; white eve .................................................................... . . . . . . . . 5

3131 Barnard's Perpetua1. Dee? blue, with white eye; very fine ................................... 10
3132 Royal Purple. Deep blue, with a distinct white eye ................................................ 5
3133 Mixed (gracilis) ................................................................... . . . . . . . oz., 60c... 5
3134 erecta, Crystal Palace compacta. Dark blue; for bedding; 6 in. ............................. 25
3 I35 " Emperor William. Light blue; very fine . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 25
3136 " Golden Queen. Dwarf; blue flowers, yellow leaves; very fine sort .................. 10
3 I38 " White Lady. Splendid large-flowered white . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10
PERENNIAL, or TALL VARIETIES-
3143 cardinalis (Cardinal Flower). Long spikes of richest cardinal-red .............................. . 10
3144 " (fulgens), Queen Victoria. Brilliant scarlet, dark leaves; very striking and beautiful 50
3 I 45 ramosa. Blue; flowers profusely in fall; height Ift. .............................................. 5
Collections, including-
12 varieties Lobelia . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 60
6 ". 6 ................................................................................................. 35

## MARIGOLD

(Tagetes)
These, like the Calendulas, are valuable because they light the garden with such a grand glitter of yellow far into the frosts of autumn. The dwarf varieties make a fine border for taller sorts, and both are effective when planted in groups or in garden borders. Hardy annuals. Average height, $11 / 2$ to 2 feet. 3154 African, Orange. Rich orange color.............oz., 40c. . .pkt., 3156 African, Eldorado. Large, quilled perfectly double; brilliant shades of yellow
oz., 40c..
3158 African, Pride of the Garden. Extra-large, double flowers of richest yellow; dwarf and neat
3159 African, Delight of the Garden. Also dwarf and large-flowered; lemon-yellow; double
3160 African, Lemon Queen. Very rich lemon color .....oz., $50 \mathrm{c} .$. .
316I African, Prince of Orange. Beautiful orange color. .... oz., $50 \mathrm{c} .$. .
3162 African, Mixed Double...oz., 40c. 3164 French, Tall Dark Brown. Yields an amazing number of charmingly conventional reddish brown-colored little blossoms; I ft. oz., foc.,.
3165 French, Dwarf Striped. This and the next have flowers handsomely marked; 1 1/2 ft. . . . . . . oz., 40 c . .

5

5

5

kochia (see page 80 )


MARIGOLD

MARIGOLD, continued
3166 French, Dwarf Goldstriped. Rich and quaintly striped double flowers.oz., $40 \mathrm{c} . . \mathrm{pkt}^{2}$, 3167 French, Dwarf Dark Brown. Beautiful reddish brown .oz., 40 c .
3168 French Dwarf Legion of Honor (Little Brownie). Single golden yellow blooms, marked with velvety red . . . . . . . oz., 50c. . 3169 French Tall Mixed Double.oz.,40c... 3170 French, Dwarf Mixed Double.
oz., $40 c$.
Collections, including12 vars. Double French... 45 6 " " " ". .. 25 6 " " African
See, also, Calendula, page 69

## MIGNONETTE

(Reseda odorata. $h A$ )
Seed of this popular annual can be sown at any time, and if successive sowings are made, its fragrant, modest colored flowers may be gathered outdoors until November. Sow in pots or boxes under glass in February or March, and thin or pot off the seedlings to make good plants for bedding out in April. Sow outdoors in rows about April I, and again regularly at intervals of about three weeks till August, a row or two at a time for succession. The July sowing will make good winterflowering plants.

Oz . Pkt. 3176 Reseda odo-
rata. Sweet.\$0 I5 \$0 05 3177

Crimson Giant
(ameliorata).
Red-flowered . 305
3179 Crimson Queen (Paris Market). Crimson ..... IO
3180 Machet, Dwarf. Deep red ..... 10
3181 Golden Machet ..... 10
3182 Bismarck. Improved dwarf ..... 10
3183 Gabrielle. Large red; 9 in. ..... 10
3184 Goliath. Red; enormous spikes; striking ..... 15
3185 Victoria. Compact; brilliant red; 6 in. ..... 10
3186 Miles' Spiral. I ft ..... 35
3187 Giant Pyramidal. $11 / 2 \mathrm{ft}$.
3188 Diamond, Pure white flowers; extra fine Diamond, Pure white flowers; extra fine ..... 50 ..... 10
Alen's Defance. Spikes of great length, very fragrant and fine for cutting; 1 1/2 ft ..... 10
60
3192 Ruby. Very fine strain of the Machet, with coppery scarlet flowers ..... 10
5
Collection, including 12 varieties Mignonette ..... 50

## IMPERIAL JAPANESE MORNING-GLORY

The leaves are mostly plain green, but some are oddly blotched with white or yellow. Flowers vary from pure white to carmine, through blues and purples of every shade to almost black. Vines vigorous, growing rapidly to a height of 10 or 20 feet, and their foliage is spangled with hundreds of large and lovely flowers. 3198 Finest Single Mixed. Large-flowered; all colors
oz., 20c. . .pkt., 5
3199 Fringed Single Mixed. All beautifully fringed oz., 40c... 5
3200 Double-flowered Mixed. Superb mixture of double sorts. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
3201 Giant "Mikado.", The largest-flowered 10
3202 Yellow. Very distinct and striking25

## NASTURTIUM

A marvelous range of new colors has been developed in this favorite flower, which for three or four months of the season makes a better display than almost any other plant. No other annual will produce such a lavish profusion of flowers for so long a time with the same small outlay of time and labor. The maximum of bloom is produced in thin soils, and never flags through the hottest weather. In soils too rich leaves predominate and the plants are apt to rot off in wet weather, especially if standing too close.

For Climbing varieties and the celebrated Lobb's, see next page

## DWARF or TOM THUMB NASTURTIUM

(Tropœolum nanum)

These have a neat, compact habit and attractive foliage, are not disturbed by insects, bloom in two months from sowing and most profusely the whole season.
3206 atrococcineum. Brilliant scar-
let; fine ......oz., 15c....pkt., 3208 Aurora (Terra-cotta). Fine. .
oz., 20c. .
3210 Beauty. Yellow and scarlet.
oz., $\mathrm{I}^{\mathrm{c}} \mathrm{c}$..
32 II Chameleon. Mottled crimson, bronze and yellow; very fine. oz., 20c... 3212 cœruleo-roseum. Bluish rose oz., I5c.
3213 Crimson oz., I5c..
3214 Crystal Palace Gem. Yellow and carmine. ..... oz., I5c.. .
3216 Empress of India. Deep crimson; fine dark foliage.. oz., 20c... 5
3217 Golden Cloth. Golden yellow leaves; scarlet flowers......oz., 20c...
3218 Golden Dream (Reve d'Or). Very bright yellow, with intense green foliage ......oz., 20c... yellow ..... oz., 20c... 5
3220 King of Tom Thumbs. Scarlet; fine color.
oz., I5c.

3221 King Theodore. Black, velvety; darkest of all. oz., I5c. .
3222 Lady Bird (Spotted King) Yellow, and red.

$$
\text { oz., 20c.. } 5
$$

3223 Prince Henry. Light yellow, marbled scarlet.

$$
\text { oz., I } 5 \mathrm{C} \ldots 5
$$

3224 Rose ..........oz., I5c.. . 5
3225 Ruby King. Ruby-red, dark-leaved: fine. .

$$
\text { OZ., 20c... } 5
$$

3226 Scarlet . . . . . oz., isc... 5
3228 Spotted ......oz., I5c... 5
3229 Vesuvius. Salmon-rose;

323 I Yellow . . . . . . oz., ı 5 5c... 5

## DWARF or TOM THUMB NASTURTIUM. continued

## 3232 Dark-leaved Sorts in finest mixture. Oz . 10c., 1/4lb. 25c., 1/2lb. 40c., lb. 75c...pkt.,

3233 Ivy-leaved, Golden Butterfly. New. Bright golden orange, fringed flowers; foliage deep green, distinct ivy-like form.
3234 Ivy-leaved, Snow Queen. New. Same as above as to foliage, but with almost pure white flowers

3235 Ivy-leaved Mixed. Fine. oz., 30c. . .pkt.,
3236 Variegated-leaved Queen of Tom Thumbs. New. Brilliant orangescarlet flowers, beautiful silver variegated leaves
3237 Variegated-leaved Dwarf Mixed. A splendid range of colors of these new, striking, variegated-leaved sorts 25c.; $1 / 2 \mathrm{lb} ., 40 \mathrm{c}$.; lb., 75c.................

## TALL or CLIMBING NASTURTIUM

(Tropaolum majus)
Besides their ordinary garden use for trailing over fences, trellises, stone walls, etc., these can also be grown as pot-plants for winter flowering as screens, or as trailers for hanging baskets and vases.

| 3240 | Jupiter. Giant-flowered; beau-Oz. tiful golden yellow . . . . . . . . .\$0 15 | Pkt. <br> \$0 05 | 3257 | Scheuerianum, Spotted... \$o |  | $\begin{aligned} & \text { Pkt. } \\ & \$ 0 \quad \mathrm{O}_{5} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3241 | Chameleon. Various ......... 15 | \$ 5 | 3258 | " coccineum. |  |  |
| 3242 | Dark Crimson ............ 15 | 5 |  |  |  | 5 |
| 3243 | Edward Otto. Brownish Lilac 15 | 5 | 3259 | Schillingi. Yellow, maroon- |  |  |
| 3244 | Golden-leaved Scarlet ....... 15 | 5 |  | Schulzi. Darkest leaved | 5 | 5 |
| 3245 | hemisphericum. Orange ..... 15 | 5 | 3260 | Schulzi. Darkest leaved Striped. . . . . . . . . . | 15 | 5 |
| 3246 | Heinemanni. Chocolate . . . . . 15 | 5 | 3261 | Striped <br> Sunlight. Rich golden yellow; | 15 | 5 |
| 3247 | King Theodore. Black ....... ${ }^{\text {I }}$ | 5 | 3262 | Sunlight. Rich golden yellow; flowers nearly 3 inches across |  |  |
| 3248 | Midnight. Deep brownish red flowers; foliage dark green .... 15 | 5 | 3263 | flowers nearly 3 inches across Twilight. Salmon-rose, suffused | 15 |  |
| 3249 | Orange. . . . . . . . . . . . . . . . . . . 15 | 5 |  | scarlet | 5 |  |
| 3250 | Pearl. Whitish ............... 15 | 5 | 3264 | Yellow | 5 |  |
| 3251 | Prince Henry. Light yellow, red marbled | 5 | $\begin{aligned} & 3265 \\ & 3266 \end{aligned}$ | Vesuvius. Salmon; dark-leaved. Fine Mixed | 15 | 5 |
| 3252 | Regelianum. Purplish violet .. I5 | 5 |  | 1/4 lb., 25c.; 1/2lb., 40c.; lb., 75 c . | 10 | 5 |
| 3253 | Moltke. Bluish rose . . . . . . . . . 15 | 5 | 3267 | Ivy-leaved Mixed. New. Dis- |  |  |
| 3254 | Moonlight. Immense creamy yellow flowers. | 5 | 3268 | tinct ivy-shaped leaves...... |  | 10 |
| 3255 | Rose . . . . . . . . . . . . . . . . . . . . . . 15 | 5 |  | Beautifully variegated foliage; |  |  |
| 3256 | Scarlet . . . . . . . . . . . . . . . . . . . 15 | 5 |  | distinct and charming. . . . . . . |  | 10 |

Collections, including 12 varieties Tall or Climbing Nasturtium ........................ \$o 45

## LOBB'S AND OTHER CLIMBING NASTURTIUM

(Tropcolum Lobbianum, etc.)
TROP EOLUM LOBBIANUM. This class is remarkable for the intensely brilliant colors of its flowers, which are a trifle smaller than those of other sorts. In moderately rich soil, they climb high and bloom brilliantly. Average height, 6 feet.

| $3268 a$ | Queen Wilhelmina. New. See Novelties |  | 3279 | Margaret (Princess Victoria Louise). Cream-white, deep | St. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3269 | Asa Gray. Yellowish white . . \$o 20 | 05 |  | scarlet-spotted . . . . . . . . . . \$0 20 |  |
| 3270 | atropurpureum. Dark purple, dark-leaved. | 5 | 3280 | Lilly Schmidt (Victoria). Scarlet |  |
| 3271 | fulgens (Brilliant). Bright scarlet, dark-leaved | 5 | 3282 | Chaixianum. Yellow, spotted red |  |
| 3272 | Roi des Noirs. Black-red, darkleaved | 5 | 3283 | Golden Queen. Fine yellow.... 20 Lilliput Mixed |  |
| 3273 | Lucifer. Very dark scarlet, darkleaved | 5 | 3285 | Ivy-leaved, Scarlet. Dark green, ivy-like leaves and beautiful, |  |
| 3274 | Crown Prince of Prussia. Bloodred | 5 |  | deep scarlet flowers |  |
| 3275 | Geant des Batailles. Sulphur and red | 5 | 3286 3287 | Ivy-leaved Mixed. Splendid ... 30 Fimbriatum Mixed. New. |  |
| 3276 | Primrose. Cream, with brown spots | 5 | 3288 | Fringed sorts mixed <br> Finest Mixture . . . . . . . . . . . . . 20 | 0 |
| 3277 | Crystal Palace. Scarlet . . . . . . 20 | 5 | 3290 | Madame Gunter Hybrids. A |  |
| 3278 | Spitfire. Brilliant scarlet. Very fine. |  |  | French strain noted for wide range of colors |  |
|  |  |  |  |  |  |

## PANSY

## (Viola tricolor. Hearl's-ease. hA)

The Pansy is a plant that we all delight to grow in plentiful supply for flowers all the year. For very early outdoor bedding, the seed is sown from August to October in a coldframe, or in rich, moist garden beds, from which the plants can be transferred to a coldframe, setting them 2 to 3 inches apart each way before severe winter weather begins.


PANSY In spring, three-fourths of them can be lifted out for bedding, and the rest left to bloom in the frame. For winter blooming in a frames set the plants about twice as far apart, and thin out half of them in the spring. Cover the blooming plants with sashes, adding a covering of matting or straw in very cold weather. In mild weather, remove the mats and tilt the sashes to admit light, heat and fresh air. In outdoor beds raised a few inches above the ground, with a mulch of dry leaves and some brush to hold them in place, Pansies will often winter nicely and bloom until midsummer, when a relay of young, vigorous plants should be ready to replace them. Spring sowings should be made early so as to secure good flowers during the early rains. Seed sown in a cool, moist place in June and July, and well tended, will give good flowering plants for fall. If they come into bloom in the heat of the summer, the flowers may be small at first, but as the weather becomes cooler, they will increase in size and beauty. Through summer heat the flowers are finer in a somewhat shaded place, but in almost any situation good Pansy seed will give fine flowers in spring and fall. Early fall sowings give the finest flowers. The higher priced sorts produce the largest flowers. This should be borne in mind when ordering.
O3298 Thorburn Superb. The richest and most choicely varied mixture possible. It pro-duces only the finest colors, largest flowers and most beautiful forms. . . . . . . . $\$ 500$\$0 25
Bugnot Superb Blotched. An exceedingly large, three-blotched strain, with upperpetals finely lined; great diversity of finest colors.25
3300 Cassier, Finest Mixed. Flowers of grand size, beautifully spotted4 oo
3301 Masterpiece. Curled, wavy petals, splendid colors; distinct ..... 200 ..... 153302 Madame Perret. A splendid giant-flowered strain, comprising all shades of red from
light rose to dark purple, some of them finely striped ..... 3302 ..... 15Giant Orchid-flowered Mixed. A splendid and quite distinct race showing remark-able combinations of all colors, including shades of chamois, terra-cotta, pink,orange, etc.
Parisienne Mixed. Handsome, large-flowering strain25
3306 Fine Large English. All colors mixed15
103307 Mixed. Ordinary strain25
3308 Azure-Blue. Very fine color
3309 Alack-Blue. Dark velvety ..... 10
3309 Black-Blue. Dark velvety ..... 10
33 IO Black (Faust; King of the Blacks). Almost coal-black ..... 10
3311 Bronze. Golden bronze ..... 10
3314 Cardinal. Brilliant red; very fine ..... 10
3316 Coquette de Poissy. Distinct mauve, shading almost to white on the petals ..... 10 ..... 00
3317 Dark Purple ..... 10
3319 Silver-edged. Margins pure white ..... 253320 Emperor William. Splendid; ultramarine-blue; very showy332 I Fairy Queen. Light blue, with white border25
00
3322 Fawn Color (Prince Bismarck). Quaint and pretty
3323 Fire King. Golden yellow, upper petals purple10101010

## PANSY, continued

3324 Gold-margined. Splendid bright color.
Pkt. ..... \$0 10
3325 Golden Queen. Pure yellow ..... 10
3326 Light Blue. Lovely sky-blue. ..... 10
3327 Lord Beaconsfield. Deep purple-violet, shading to light blue ..... IO
3328 Meteor. Bright yellow and brown; attractively blotched and margined ..... 10
3329 Odier. Extra-large; blotched; rich colors; Show Pansies ..... 25
3330 " Blotched on white background ..... 25
3331 " Blotched on red background ..... 25
Blotched on yellow background ..... 25
3332
Peacock. Large, peacock-blue flowers, edged with white
10
10
3334 President Carnot. Pure white petals, each with a deep blotch ..... 15
3335 Rainbow, or Pheasant's Eye (Quadricolor). Very fine strain ..... 10
3336 Red Riding Hood. Brilliant shades of red ..... 10
3337 Ruby. Splendid strain; richest red shades ..... I5
3338 Snow Queen (candidissima). Pure satiny white ..... 10
3340 Tiger. Curiously striped and mottled ..... 10
3342 Victoria. A fine deep solid wine-red ..... 10
3343 White, with Black Center. Very showy ..... 10
3344 Yellow, with Black Center. Splendid ..... IO
3345 Yellow Gem. Pure yellow, without eye ..... 10
3346 Tufted Pansies. A splendid strain; small, but very fragrant flowers ..... 25
TRIMARDEAU GIANT. This strain has remarkably large flowers, carried well above their leaves, and generally marked with large blotches; the plants are extra vigorous and compact.
$335^{2}$ Giant White ..... 25
3353 " Pure Yellow (Golden Queen) ..... 25
3354 " Bridesmaid. Most beautiful rosy white ground, with dark center blotches ..... 25
3355 " Ruby King. Richest shades of red, scarlet, orange-scarlet and wine-red ..... 25
3356 " Lord Beaconsfield. Lavender and purple ..... 25
3357 " Striped ..... 15
3358 " Azure-Blue ..... I5
3359 Black-Blue ..... I5
3360 " Hortensia, Red. Splendid ..... 15
3361 Indigo-Blue. Very rich color ..... 15
3362 auriculæflora. Beautiful shades ..... 15
3364 White, with Dark Eye ..... I5
Mixed ..... oz., \$1.50. 10
Choice Collections of Pansies or Heart's-ease -

| 24 varieties | \$1 25 | 8 varieties |
| :---: | :---: | :---: |
| 18 " | 100 |  |
| 12 | 75 |  |

## PETUNIA HYBRIDA

(hhA)

Once fairly started, the Petunias grow almost as easily as weeds and furnish a glorious succession of bloom from early summer until frost. The Large-flowered strains are very beautiful and of almost endless variety. Seed of the Double and Giant-flowered Petunias is made expensive by the great amount of labor involved in hand-fertilization, and it is well to handle seed and tiny seedlings with some care. Sow in hotbed, coldframe, or in boxes of fine soil in the sunny windows of a warm room in April or May, and transplant about I foot apart in garden beds. Seed of the double varieties has not so much vitality as that of single sorts and needs a little more care in watering to be sure of germination. We have no better plants than the Petunias for beds and masses, borders, window-boxes, baskets and vases. They will grow in almost any soil and bloom profusely through long droughts. The newer varieties are of brilliant colors. The highest priced sorts produce the finest and handsomest flowers.
SINGLE LARGE-FLOWERED. These have flowers 4 or more inches across. Our strains are superb, and the collections offered contain only the finest varieties. Average height, $11 / 2 \mathrm{ft}$.
3375 White. Clear paper-white flowers of unusual size . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . pkt., 25
3377 intus aurea. Large, yellow-throated, crimson flowers . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 25
3378 Crimson Giant "Midnight." Great flowers of deepest crimson ............................... 25
3380 Purple King. Royal in color and size . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 25

PETENIA HYBRIDA, continued
3382 Rose. A charming shade. .....pkt., 25
3385 Rainbow. Of richest colors, with yellow penciled throats
3388 superbissima. Grand flowers of various colors, with richly tigered throats
3389 Thorburn Superb Giant. A strain of surpassing beauty, with flowers extremely large and deepthroated; some of them are exquisitely penciled and elegantly fringed
3391 Emperor, grandiflora Mixed. Very large, wide-open blossoms, with distinct colorings and markings. Some of the crimson blossoms have pink stars, some have pure white stars, and others are distinctly striped. Other colors are mauve mottled white, violet and pure white
3392 Superb Single Mixed. Offers a grand variety of colors . . . . . . . . . 25

## 3393 Good Mixed

## FRINGED LARGE-FLOWERING.

These have deeply cut and fluted margins-
3394 White, "Snow Storm." Finest white in this section . . . . . . . . . . 25
.
3395 Crimson. A very rich color ...... 25
3397 Titania. Beautiful velvety purple gins 25

3398 Ruffled Giants. Extra-large flowers, beautifully ruffled, fluted and fringed ...............pkt., 50
3399 Thorburn's Century Prize. An unrivalled strain of fringed, ruffled, giant-flowered sorts in most beautiful colors. Very valuable
3402 Perfection Mixed. Choicest fringed sorts ..... 25
DOUBLE LARGE-FLOWERING. Our seed will produce flowers large, fragrant, elegantly formed andbeautiful either for h@use, garden, or conservatory. The Double Petunias are great favorites for potculture in ordinary windows. Only a small proportion of the double strains bear double flowers. Thereason of this is the fact that the seed must be selected from single flowers, the double ones not producingseed. The single flowers must be pollinated with pollen from double ones. Cuttings may be made fromdcuble-flowered plants and inserted in light, sandy loam for rooting, thus increasing the percentageof double-flowering plants.
3404 Double Mixed Large-flowering. ( 250 seeds in pkt.) ..... pkt., 50
3405 " Fringed Mixed Perfection. Flowers large and much beruffled ..... 75
3407 " " Lady of the Lake. Exquisite flowers of finest size and purest white ..... 75
3408 " " Heliotrope. Mauve and heliotrope colorings ..... 75
3409 " "Snowball. A grand pure white; extremely double; extra-large flowers ..... 75
3410 " " Crimson. Gorgeous colors; extra-large flowers ..... 75
3412 rosea. Brilliant rose; very showy ..... 75
SINGLE BEDDING VERIETIES. Smaller-flowered sorts, found most valuable for beds and masses.
3415 Countess of Ellesmere. Dark rose with fine white throat ..... 10
3416 Howard's Star. Rich crimson; distinct white star in center ..... IO
3417 Inimitable Dwarf. Bushy little plants, covered with masses of star-shaped flowers; 5 to 8 in . Io
3418 venosa. Variously colored; beautifully veined. ..... 5
3419 White. Pure white; very fine ..... 5
3422 Mixed Single. Very fine colors ..... 5Collections of Petunias. These contain only the finest varieties.
12 varieties Single Large-flowering ..... \$I 25
75I2 " Dquble Fringed
6 ..... 25
80
$\begin{array}{rlll}12 & \text { ". } \\ 6 & \text { " } & \text { "rge-flowering }\end{array}$ ..... I 50

## PHLOX DRUMMONDII (Flame Flower)

The annual Phloxes are dazzling in effect, particularly so when sown in masses or ribbon beds of contrasting colors. Few flowers are so easy to grow from seed, so pretty, and compact in habit, so quick to bloom, or give such a brilliant display of color for so little cost and care. There are few desirable colors beyond their range, and, if given good soil and plenty of water, they furnish a long supply of delicate flowers for cutting. For pot culture, as trailers, and as an undergrowth for tall, bare-stemmed plants they are also valuable. The first sowings should be made as soon as the frost is out of the ground in spring: later ones in May, either where the plants are to bloom, or in a seed-bed, as the Phlox transplants readily. In transplanting, set the taller kinds about a foot apart; if planted too thickly, they suffer from mildew. Cutting away the flowers and seed-pods makes the plants more bushy and compact, and lengthens their blooming time. Average height, Ift.

GRANDIFLORA. This section has beautiful, round-petaled flowers, larger than in the older sorts; showy and constant.
3428 alba. Pure white .................. . plit., 10
3429 alba oculata. ........................... 10
3430 atropurpurea. Dark purple ........... 10
343 I Chamois-Rose. A soft shade ........ 10
3432 coccinea. Large; brilliant scarlet...... 10
3434 Crimson 10
3438 Isabellina. Yellow ...................... . . . . 10
$344^{0}$ rosea. Rose. . . . . . . . . . . . . . . . . . . . . . . . 10
$344^{2}$ kermesina splendens. Vivid crimson. 10
3443 stellata splendens. Star-like crimson. . 10
3448 Mixed. Various large-flowering. sorts. oz., 75c... 5
SMALL-FLOWERED VARIETIES-
3450 Heynholdi. Scarlet; fine for pots........ 10
3452 Radowitzii. Rose, spotted white...... 10
3453 Graf Gero, Mixed. Fine for pots. . . . . . 10
HALF-DWARF-
3454 Crimson Bouquet . . . . . . . . . . . . . . . . . 10
DWARF VARIETIES. Plants of this charmingsection grow only 6 or 8 inches high, and formdense masses of bloom all summer. They areespecially useful for beds, edgings, pots, etc.
3455 Surprise. Brilliant vermilion, with pure white star center; splendid for groups and edgings. ..... 15
3456 Snowball. Pure white; fine for pots ... 10
3457 Fireball. Bright flame-red. Fine forpots10
3458 hortensiæflora. Rose. ..... 10
3460 Chamois-Rose. Very fine. ..... 10
3461 grandifiora nana compacta. CecilyPhlox, mixed10
3462 Fancy Mixed ..... oz., \$1.50.. 10
STAR PHLOX -
3465 cuspidata (Star of Quedlinburg). Star-shaped; many colors. . . . . . . . .oz., \$1 . . Io
Collection, including-12 varieties Phlox Drummondii60

## PERENNIAL PHLOX

These hardy sorts make large bushes about 3 feet high and bear large heads of finely-colored flowers. 3470 decussata, Mixed
.pkt., 10
3472 Large-flowered Hybrids, Mixed 25

## PINK (Dianthus)

In this large and greatly varied genus are some of our most beautiful and best-loved fowers, unsurpassed for color and fragrance. They are hardy biennials that bloom finely the first season, remaining green all winter and blooming the next year also, if lightly protected. Old plants flower the earliest, but as young ones give the largest, finest flowers, sowings are made every year. Seed can be sown under glass in the spring, or in an open, sheltered bed. The seedlings are easily transplanted and should stand 8 to 12 inches apart; dwarf ones about 6 inches. If especially large, brilliant flowers are desired, a bed of wellmixed, turfy loam, leaf-mold, and well-decayed manure should be prepared for them. Average height, ift.
CHINENSIS (China, or Indian Pinks). The flowers of all are double and showy.

3484 " Mixed China Pink. All best colors . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . oz., 40c... 5
3485 " Very Dwarf Mixed (Narcisse) ............................................................. 5
HEDDEWIGII (Japan Pinks). Unusually large and brilliant; often oddly edged, striped and ringed.
3486 Single Mixed . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . oz., 60c... 5
3487 " Queen of Holland. Splendid pure white Japan Pink, introduced recently............. Io
3488 " Eastern Queen. Rose-colored flowers, 2 to 4 inches across; finely striped and stained. . Io
3489 " Crimson Belle. Flowers large and handsome; dark red .............................. 10
3490 " The Bride (Little Gem). White, with purple center . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10

PINK, HEDDEWIGII, continued

3491 3492

Double Mixed.oz., 75c... pkt., 10 "Mourning Pink." Very large, double flowers of blackish crimson, fringed white,
" "Fireball." Brilliant scarlet; very compact and floriferous
diadematus (Diadem Pink). Magnificent in color and variety
laciniatus, Salmon Queen. Beautiful rosy salmon; single. Io 3496 laciniatus, Oriental Beauty. Petals wide, crinkled, richly marked with pink, white, etc. I 3497 laciniatus, Mirabilis fl. pl., Mixed. A Japanese race, quite distinct narrow foliage. Flowers deeply laciniated; fine for cutting.
laciniatus, Single Mixed. Fringed flowers of all colors oz., 6oc. laciniatus, Double Mixed oz., \$I
IMPERIALIS FL. PL. (Double Imperial Pink). Robust, bushy grower, with large, double flowers.

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3502
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3503

Double Mixed .... oz., 6oc... rich color.
3504 " Dwarf White. Great, snowy flowers; 9 in .

3505 " | snowy flowers; $9 \mathrm{in} 5$. |
| :---: |
| Dwarf Mixed. oz., 6 cc . |

PLUMARIUS (Sweet May Pinks). These are the fine, fragrant perennials of old-time gardens, still reckoned among the most beautiful for massing and cutting.
3507 Pheasant's Eye. Pretty fringed flowers . ${ }^{\prime}$ kt.,
3508 Scoticus (Double Scotch Pink). A series of exquisite colors; ours is the finest strain ..... 50
3509 semperflorens (Perpetual Pink). Double, semi-double and single; of various colors. ..... 10
3510 Single Pink, Mixed ..... 5
$3510 a$ Double Dwarf Erfurt Mixed. Extra fine ..... 10
351 II " and Semi-Double Grass Pinks. Pretty flowers of delicate colors ..... 10
35I2 Hybrid Dianthus. A cross between Swe ..... 25
Collections of Pinks, including-
I2 varieties Fine China ..... 50
8 ..... 40

6

## POPPY (Papaver)

Before tulips are fairly gone our gardens begin to be gay with Poppies. Few flowers have the same grace of stem, airiness of poise and delicacy of tissue. For beds and borders with a background of green, there is nothing finer; some sorts are admirable for naturalizing in open wooded grounds; others, like the Shirley, are beautiful for cutting. A sandy loam suits Poppies best, and, as their strong tap-roots are difficult to transplant, it is well to sow seed where the plants are to bloom. Sowings made in fall and at intervals in spring, will provide a long succession of flowers. Sow thinly, covering very lightly, as the seed is quite small, and thin the plants to stand about a foot apart. The best plants are those grown from early sowings while the earth is cool and moist.
PERENNIAL VARIETIES. Tall, large-flowered and showy; effective among shrubs. Average height,
2 to 4 feet.
3513 bracteatum. Scarlet; 3 ft. ................................................................... $50 \mathrm{z} .$. . pkt., 5
3514 Orientale. Enormous flowers of deep, flashing scarlet; entirely hardy anywhere; 3 ft . oz., 75 c ... Io
$35 I_{5}$ Orientale, Mixed Hybrids. Finest shades ........................................... oz., 75c... I
3517 nudicaule (Iceland Poppy). These dwarf, bright yellow Poppies form one of the chief attractions of the garden through several months. They are most beautiful when grown in masses from seed sown every year; I ft.


POPPIES

## POPPY, PERENNIAL VARIETIES, continued

35 I8 nudicaule aurantiacum. Orange. All this class has crimped petals and peculiar grace. pkt., io
3519

## 3520

 album. Pure white.10ANNUAL VARIETIES. This section includes double and single flowers of greatly varying sizes, selfcolored and daintily edged. All are easily cultivated and greatly admired. Average height, 3 feet.
352 I Thorburn Giant White. White flowers of grand form and size, 3 to 4 feet
3522 Maid of the Mist. Pure white, single, very large, deeply fringed; 3 to 4 feet
3523 Miss Sherwood. Large, single, satiny white, with upper half of petals chamois-rose; the flowers are of great substance and fine for cutting.
.oz., 40c... 5
3524 Mephisto. Beautifully fringed; varies from red and black to rose and white
oz., 40c.
3525 Flag of Truce. Pure white; large and showy flowers
3526
3527
Wonderful new shades of blue, lavender and salmon.
.oz., \$I . . I5
glaucum (Tulip Poppy). Striking, tulip-shaped flowers of intensely brilliant scarlet; dwarf .
pavonium (Peacock Poppy). Intense scarlet, with broad bands of purplish black
3530 umbrosum. Rich crimson, spotted with black353 I lævigatum. Scarlet, with white marks at petal bases; very showy.53533 Danebrog. Large, single scarlet, with white cross at base of petals.53534 Mixed Single. All colors55
3535 Double White ..... 5
" Srarlet ..... 5
" Mikado. Large, white flowers, attractively fringed with rose ..... 5
" Cardinal. The immense, scarlet flowers last unusually well ..... 5
" American Flag. White, bordered with scarlet ..... 5
" Carnation-flowered, Mixed. Very double, fringed; colors dazzling . . . . . . oz., 20c. . ..... 5
" Pxony-flowered Dwarf Fireball. Deep scarlet; very large-flowering ..... 5
" " " "Snowball. Pure white; very large-flowering ..... 5
Mixed. Large, handsome flowers of many colors. ..... 5
Ranunculus-flowered, Mixed. Flowers small, finely formed, double ..... 5

Pæony-flowered Single White. (Used for opium.) In olden times it was believed to possess magical powers, and with cypress-boughs, hemlock-root and yew, formed part of the witches' regular stock-in-trade
Collections of Poppies, including-25

## PORTULACA

This charming little annual is unrivaled for brilliancy among plants of low growth, and has the happy faculty of flourishing under almost all conditions, though hot sun and a light, sandy soil suit it best. Nothing is prettier for beds, edgings, rockwork, and for filling up irregular spaces or unexpected gaps in the flower-beds. As an undergrowth for taller plants, it is also valuable. Through the driest, hottest seasons it flourishes amazingly, carpeting the ground with a mat of succulent foliage that in the forenoon is hidden by gayest flowers. The seed does not germinate until hot weather, and should be sown late. Beyond the sowing, this plant requires little care. It can be transplanted in full flower. Average height, 6 inches.
SINGLE VARIETIES. Each strong plant will cover a space about 2 feet in diameter.
3546 splendens. Crimson..............pkt., $5 \mid 3550$ aurea. Deep golden yellow........pkt., 5
3547 Carnation-striped Rose.............. 5 . 3551 Thorburni. Beautiful bright yellow.... 5
$354^{8}$ Thellusonii. Scarlet................... $5 \mid 3552$ rosea. Rich rose......................... 5
3549 albiflora. Pure white.................. 5 . 3554 Mixed.............................., 50c... 5
DOUBLE VARIETIES. The flowers are so full and perfect as to resemble tiny roses; toward the close of the season they will increase in size and beauty. As the full double flowers do not produce seed, it must be saved from the semi-double flowers growing with the full doubles. The product of that seed will produce many single flowers. As these bloom earlier, they can be pulled out like weeds. When the full doubles appear, cuttings can be made from them and the bed extended indefinitely with only full double flowers.


## RICINUS

(Castor-Oil Plant)
Picturesquely showy and imposing, the Ricinus gives to the garden magnificent semi-tropical effects. Grown as a specimen, it makes a perfect pyramid of gigantic leaves; a dozen plants in a large bed show a glorious mound of glistening colors and may be admired from a long distance; planted thickly, it soon forms a handsome screen or hedge; the lower-growing, dark-leaved sorts are beautiful for dotting here and there among cannas, scarlet pelargoniums, etc. Tall varieties grow from 8 to o feet high, with leaves several feet across and beautifully lobed. Half-hardy annuals.

3574 Borboniensis. Violet; oz., 20c....pkt., 5
3575 Africanus. Bright colors; 8 ft .......... 5
3576 Gibsoni. Violet-bronze; 5 ft ............ 5
3577 macrophyllus. Dark purple; $6 \mathrm{ft} . \ldots$. . 5
3578 Cambodgensis. Glistening red-maroon; stems black; $5 \mathrm{ft} . . . . . .$. . . oz., 25 c ..
hybridus Panormitanus. Cross between Cambodgensis and Zanzibariensis. Huge dark brown leaves, bluepowdered stem. Upright habit....pkt., io
purpureus. Purple.

3581 Philippinensis. Immense leaves;

3583 Philippinensis purpureus. Lovely rich purple..............................pkt.,
$35{ }^{8}+$ sanguineus. Red stems and seeds; 6 ft .. 5
3585 Zanzibariensis. Finest mixture; 8 to io
ft.............................oz., 25c... 5
3588 Mixed. Fine sorts........... oz., I5c... 5
Collections, including-
12 varieties Ricinus, choicest sorts........... 45
6 " " " "............ 25

## SALVIA

(Flowering Sage)
The Salvia splendens is a standard bedding plant that keeps the garden bright with color until late in autumn. For pot culture, for cutting and for borders, etc., it is very valuable. In this climate sow seed in window-boxes or frames, in March or April, and set the plants outdoors the latter part of May; or sow outdoors not before June $\mathbf{I}$, and protect from heavy rains and strong winds. The plants grow and bloom profusely in any light, rich soil. Both the tender and hardy perennial sorts bloom the first year, and all are treated as annuals.
3590 argentea (hP). Silvery-leaved; flowers white; blooms in spring; $3 \mathrm{ft} \ldots \ldots \ldots \ldots \ldots \ldots$. ................ 5
3592 farinacea (hA). Light blue flowers in great abundance; forms a neat bush, $3 \mathrm{ft} . \ldots \ldots . .$.

## SALVIA, continued

3593
patens. A handsome tender perennial, with erect spikes of rich blue flowers in summer...pkt., 25 3594 Rœemeriana (hA). Crimson-flowered; very dwarf and of neat habit. 10
SPLENDENS. These are the well-known bedders, single plants of which carry hundreds of long, flam-ing flower-spikes open at one time keeping up the display until frost.
3595 splendens grandiflora, Scarlet. A rich-flowered bedder; 3 ft . ..... oz., \$1.50. . 103596 "Salmon Rose. A handsome variety of very compact growth and erect habit. Theflower-spikes are often I foot high, the plant itself growing 2 feet high and 2 feetin diameter. The color is a soft salmon-rose and the foliage dark green.25
3597 "Bonfire. Our well-known compact Salvia-the freest blooming of all, seeminglyon fire all the time with dense, flaming scarlet spikes; $21 / 2 \mathrm{ft}$. .10
3598 "Dark Scarlet Bouquet. Dwarfer than Bonfire, with large dark scarlet flowers.Very long spikes standing well above the foliage.25
3600 "Scarlet Dragon. Intense scarlet; long spikes of very large flowers. ..... 25
3602 "Golden Blotched Foliage. Leaves bright green, blotched light golden. Extremely floriferous; erect growth, about 20 inches high by same diameter. Splendid ... 25 ..... 25
3604 "Silverspot. Rich green leaves elegantly spotted with yellow. The intense bright 3604 "Silverspot. Rich green leaves elegantly spotted with yellow. The inten ..... 25
Ball of Fire. Very dwarf and compact variety, especially suitable for pot culture.The plants are about 2 feet high to the top of the flower-spikes and about thesame in diameter.25
3606 Lord Fauntleroy. Only 18 inches high; very compact, with flower-spikes standingclear above the foliage. Fine for bedding in masses or for borders around bedsof taller plants; also fine for pots. The earliest flowering of all.25
3607 " Early Dwarf Zurich. Grows only 12 to 15 inches high, with many fine erect spikesto each plant borne well above its handsome foliage. Of recent introduction.Color brilliant scarlet30

## SNAPDRAGON

(Antirrhinum)
The Snapdragon is one of our finest perennials, flowering the first year as annuals. Its bright-colored curiously formed flowers always excite interest, and among the newer sorts are flowers of a great variety of colors and markings. Their rich spikes are beautiful for cutting, and keep fresh a long time. From seed sown in the open ground, plants will bloom in July and August. For early flowers, sow under glass in February or March and transplant into beds of warm, dry soil moderately enriched. The Snapdragon, like most perennials and biennials which bloom the first year, is treated as an annual and sown every year. Average height, $I / 2$ feet.

## TALL VARIETIES-

3608 Atrococcineum. Dark scarlet. . . . .pkt., 5
3609 Coral Red. Light scarlet; white throat. New.
3610 Fairy Queen. Golden orange; white throat.
36i I Romeo. Violet rose with pale lip....... 5
TALL LARGE-FLOWERING VARIETIES-
3612 Delilah. White and carmine . . . . .pkt., 5
3613 Galathee. Crimson and white. . . . . . . . 5
3614 Striped. Odd and pretty . . . . . . . . . . . . . 10
36 I5 Firefly. Scarlet and white. . . . . . . . . . . . . IO
3616 White. Beautiful for cutting . . . . . . . . . . . 5
3617 Yellow. A pure, soft color ............... 5
36 I8 Queen Victoria. Pure white; superb... io
36 I9 Large-flowered Mixed. Fine. . . . . . . . . 5

DWARF VARIETIES. Plants of this section make elegant bedders, as they bloom extra profusely and are about only 6 inches high.
3620 Black Prince. Nearly black. ..... . pkt., io
362 I Pink Empress. Beautiful dark rose. . . 10
3622 Picturatum (Blotched) . . . . . . . . . . . . . 5
3623 Golden Queen, grandiflora. Pure yel-
$\qquad$
$362+$ Queen of the North. Pure white; small leaved.

5
3625 Fine Dwarf Mixed ......oz., 50c... pkt., 5
3625 Tom Thumb Mixed. Very dwarf strain Oz., 75C... 10 Collections, including-
$\begin{array}{rl}12 & \text { varieties Snapdragon, Finest Tall . . . . . . . . } \\ 6 & 50 \\ \text { " } & 50\end{array}$

## STOCKS

(Mathiola)

From the general make-up of the great Stock family no desirable quality seems to have been omitted. The plants have good habit, fine leaves, beautiful and fragrant flowers in all refined colors, a long season of lavish bloom, vigor and adaptability to many conditions of culture. Such plants naturally have many uses; we find them unsurpassed for bedding, edgings, pot culture, house or conservatory decoration, and for cutting. For bouquets and floral work the double white sorts are especially useful. To secure fine

## STOCKS, continued

early flowers, sow under glass in March or April, transplanting the seedlings when an inch high into other pots or boxes, or into fine soil spread over some discarded hotbed. In showery May weather, transfer to garden beds of deep, rich soil, setting the plants about a foot apart. Transplanting several times in the early stages of growth tends to give them a more dwarf and compact habit. For later flowers, sowings may be made in the open ground in May. If plants that begin to bloom late are carefully lifted and potted in fall, they will flower finely all winter in a house that is tolerably cool and moist. The blossoms are very lasting. Average height, I to $11 / 2$ feet.
GERMAN TEN WEEKS. These are the favorite half-hardy annuals, all the more prominent qualities of which have been given above. Our seeds are saved from the choicest double varieties.
$\left.\begin{array}{cc}3627 & \begin{array}{c}\text { Dwarf } \\ \text { pure } \\ \text { double; extremely early ...........pkt., } \\ \text { whowflake unusually large }\end{array} \\ 3628 & \begin{array}{c}\text { Large-flowering Perpetual "Empress } \\ \text { Augusta Victoria." Delicate silvery }\end{array} \\ \text { lilac flowers of great substance, borne }\end{array}\right\}$

| 3643 | Dwarf Large-flowering Shining Pur-ple-Carmine pkt., |
| :---: | :---: |
| 3644 | - Chamois. |
| 3645 | - Flesh Color, "Souvenir de Nice" |
| 3646 | - -Violet. |
| 3647 | -Yellow |
| 3648 | - Mixed . . . . . . . . . . . . . . . per oz., \$2 |
|  | Giant Perfection. Tall, handsome; spikes large, flowers rose-like. |

3649 - White. $11 / 2$ to 2 ft .................. . . 25
3650 - -Mixed .................. . per oz., \$3.. Io
3651 Giant Tree. Double large flowering, finest mixed. . . . . . . . . . . . . . . . . . . . pkt., 25
3652 Ordinary Mixed Stock. . . . . . oz., 75c.. 5 Wallflower-leaved. The popular cutflower variety, with flowers of clearest possible colors, and dark glossy leaves.
3653 - White ................. . . . . . . . . . . . . 10
3654 - Crimson . . . . . . . . . . . . . . . . . . . . . . . 10
3655 - Mixed . . . . . . . . . . . . . . . . . . . oz., \$3 . . 10
3656 Dwarf German Bouquet Mixed. Flow-er-spikes thickly massed above the leaves; 1 ft.................... . oz., \$3.. 10
Emperor Large-flowering. Sow in spring for autumn and winter flowers; sow in midsummer for abundant spring bloom.
3657 - White ................................ . . . 25
3658 - Crimson . . . . . . . . . . . . . . . . . . . . . . . . 25
3659 - -Mixed................. . . . . . . . . . . . . . 25

AUTUMNAL and LATE-FLOWERING SORTS. From seed sown in spring and summer these halfhardy biennials begin to bloom in fall and will keep up the display all winter and late into spring if transferred to cool, airy quarters in house or greenhouse. Usually the plants are wintered over in a frame for a grand spring inflorescence. Their flowers have not so many colors as the Ten Weeks, but are larger and carried on longer, bolder spikes. Nos. 3663 to 3666 , if started in frames or boxes in early spring, will make a brilliant show in late summer and autumn.


## CHOICE COLLECTIONS OF STOCKS

 Containing Only the Finest Varieties

## SUNFLOWER

## (Helianthus)

Very stately decorative plants with great masses of yellow flowers. A few plants of the tall sorts can be placed here and there throughout the grounds with telling effect; it is the gardener's art to know how
 to locate them. Their golden yellow discs are like sunbursts among the shrubbery, and for backgrounds and screens nothing could be finer. Their long stems and wonderful lasting qualities also make them valuable as cut-flowers. Like the eucalyptus, they are said to be good for absorbing the miasma of low grounds. Plant the seed in the open garden in spring and thin the plants to stand 3 to 4 feet apart. The height of the different varieties varies greatly; all those below are hardy annuals. Nos. 3675 to 3678 are fine for cut-flowers.
3670 argyrophyllus (Texas Silver Q'reen). Has handsome, silvery foliage and a profusion of small, elegant, single flowers; 4 ft .
oz., 20c...pkt.,
3671 Henry Wilde. Tall, small-flowered, graceful, single. . oz., 15 c . .
3672 Primrose-colored. Graceful flowers of a lovely color; beautiful for cutting
.oz., 20c..
3674 macrophyllus giganteus. Huge leaves and yellow flowers; 5 ft .

$$
\text { oz., } 15 \mathrm{c} \text {. }
$$

3675 cucumerifolius (Miniature Sunflower). Of pyramidal growth; covered with hundreds of bright orange, small, single flowers; 3 ft . 3676 cucumerifolius Stella. Handsome large-flowered primroseyellow.
.oz., 50 c.
3677 cucumerifolius Orion. A very handsome variety, with petals twisted like those of the best cactus-shaped dahlias; excellent for cutting.
.oz., 50c...
3678 cucumerifolius hybridus fl. pl.
A splendid mixture of double and semi-double varieties.
oz., 5C. . .

## SWEET WILLIAM

## (Dianthus barbatus. $h B$ )

A splendid old-fashioned plant, producing its large heads of beautifully colored, sweet-scented flowers in great abundance. It is hardy, easily grown and flowers the second year from seed.
3689 White, Single. ..... oz., 25c...pkt., 5
3690 Double. ..... 10Dark Crimson, Single510
5
$3693 a$ "" " " Double. Very fine. ..... 10
3694Mixed Single5
3695Collection, including 6 varieties Sweet William25

## VERBENA HYBRIDA

In rich soil single plants of this pretty annual creeper, flowering the first season, will carpet a space 3 to 4 feet in diameter with neat foliage and scores of fine flower umbels. For beds, borders, mounds, vases and window-boxes it is particularly fine, and is frequently used for an undergrowth to tall plants like lilies. Plants raised from seed are not only cheaper, but more vigorous, producing more and larger flowers for a longer season than those grown from cuttings. Moreover, seedling Verbenas are often fragrant, particularly among the white and blue sorts. For early spring bloom, sow the seeds under glass in February; for later flowers, sow in March or April. Soak the seed a few hours in tepid water and sow in seedboxes filled with light, rich, soil; cover one-fourth of an inch deep, press down firmly, and water sparingly. When the seedlings are about an inch high, transplant into other boxes. Use a liberal amount of manure in the beds that are to receive them, and plant out io to 15 inches apart each way in May. Give a sunny position. The plants bloom from early summer until frost. Our seed is saved from very fine named varieties, and will produce healthy plants, with flowers of fine colors.
3700 Scarlet. Fine bedder............................................................................. 10
3702 Defiance. Intensely brilliant scarlet; fine for bedding.......................................... io
3703 Black-Blue, White Eye......................................................................... 10
3704 Yellow. Primrose color..............................................................................................
3706 candidissima. Large trusses of purest white flowers...................................... , $о$
3707 auriculæflora. Brilliant flowers of fine size, each with a large white eye..................... . 10
3708 Italica striata. Brightly striped............................................................. . 10
37 Io coerulea. Bright blue in various shades....................................................... io
37 II Mixed................................................................................, 6oc... 5
3712 Finest Mixed. Extra choice..................................................................., Si.. io
$371+$ Mammoth Mixed. Plants and flowers are unusually large; the strain is extremely floriferous and the colors splendid............................................................. S1.25. Io
3716 Improved Mammoth Mixed Auricula-flowered. Best of all............................... 25 Collection, including 6 varieties Verbena.................................................... 5

## LEMON VERBENA, ETC.

3718 Sweet-scented Verbena (Verbena citriodora). An attractive greenhouse shrub, grown for the delightful citron scent of its light green leaves. It is easily grown from seed and becomes quite tall with age, but is usually pruned back to a pretty bush form.
pkt., 25
3720 Verbena erinoides Small, violet; large bloomer; pretty .......................................... io
3722
alba. Dazzling white: large profuse bloomer. Excellent.
IO

## ZINNIA

(Youth and Old Age) $^{\text {gen }}$
Few flowers are so easily grown from seed sown in the open ground, or bloom so abundantly and continuously through the entire season as this hardy annual. Marvelous improvements have been wrought in the newer strains. During the month of August Zinnias are almost incomparably bright. We recommend a free use of them for groups, beds, borders, garden lines and summer hedges. Sow seed in the open ground early in spring. Average height, $11 / 2$ to 2 feet. The collections offered below are choice.

TALL DOUBLE. Showy, large-flowered; beautiful for borders and groups; 2 feet. Oz. Pkt. 3730 Genl. Jacqueminot. Dark ma-
roon. See Novetlies......... \$0 25
3732 Carmine.................... \$0 40 05
3734 Crimson........................ 40 05
3735 Flesh-colored................... 40 o5
3736 Lilac............................. . . 40 o5
3738 Purple........................... 40 05
3739 Rose............................ 40 o5
3740 Scarlet.......................... 40 o5
3742 Striped........................ 40 05
3743 Violet............................ 40 05
3744 White.......................... 40 05
3745 Yellow, Sulphur ................ 40 o5
3746 " Golden................ 40 o5
3747 Mixed.......................... 30 o5
3749 " Large Robust............. 05

Io varieties Tall Double. ..... 45
${ }_{6}^{6}$ " Dwarf Double. ..... 30
For Greenhouse Flower Seeds and many other rare and valuable Annuals and Perennials, see pages


## SWeet Peas (Lathyrus odoratus)

Through the skill of specialists, the Sweet Pea has become a much larger and lovelier flower than before it became so popular. For garden decoration it is now largely grown in clumps, and in separate colors. Many new shades, deep, dark, brilliant and delicately lovely, have appeared in the blossoms, often in indescribable combinations. There are flowers, too, of quite distinct shapes, some of which are a great improvement upon the Sweet Pea of the old type. Our present list contains all the best kinds introduced to date.

A deep, rich, moist soil is best suited to Sweet Peas, hence a trench should be dug $11 / 2$ feet deep and filled with very best loam mixed with bone meal. They are usually grown in double rows, with a wire trellis or a row of brush between. For each double row make the drills about 5 inches deep, and 9 or 10 inches apart. Sow plentifully, covering about 2 inches deep, and, by degrees, as the vines grow up, fill the trenches with soil, and thin out to about 5 to 6 inches apart. Spring sowings should be made just as early as the ground can be prepared; frost does not hurt the little seedlings. The earliest flowers are from seed sown in fall, preferably in a dry situation, and 6 or 8 inches deep, giving them level culture. Bone meal is the best fertilizer for Sweet Peas.

Thorburn's Selected Sweet Peas


## NAMED LARGE-FLOWERED SWEET PEAS

## Free by mail or express

All five cents per packet except where quoted otherwise

Per oz. Per $1 / 4 \mathrm{lb}$. Perlb.

## SWEET PEAS, continued

All five cents per packet except where quoted otherwise
Per oz. Per $1 / 4 \mathrm{lb}$. Per lb.

3800
3801
3804
3806
3807
3809
3810
3812 Countess of Lathom. Very pretty cream-pink ... . . . . . . . . . . . . . .
3814 Countess of Radnor. Standard delicate lavender; wings dark mauve; lovely.. io
3816 Crown Jewel. Primrose, veined violet-rose .
3819 Dainty. White, edged pink .
3821 Dorothy Eckford. Fine pure white; large flower
3823 Dorothy Tennant. Standard rosy mauve; wings bluish mauve....... Io . . . . . . . . .
3825 Duke of Clarence. Rosy claret; self-colored flowers; extra large io

3843 Gladys Unwin. Pale rosy pink; superb
3845 Golden Rose. Light primrose-yellow, striped rosy pink
Gorgeous. Standard bright orange; wings bright orange-rose Very showy .
3848 Gray Friar. Heliotrope, marbled on white ........................................ . . . io
3850 Helen Pierce. Bright blue, mottled on pure white; perfect shell-shaped gloxinialike flowers; beautifultrue giant type; handsome and distinct.

Hon. F. Bouverie. Standard flesh-pink; wings rosy buffover 2 feet high and begins to flower when I foot high3920 Princess of Wales. Striped mauve on white
3930 Sadie Burpee, White Seed. The largest pure white Sweet Pea ............... 10
3934 Sadie Burpee, Black Seed. Pure white; hardier than the white-seeded ......... 10The deepest shade of primrose found in any variety .........................

Horace J. Wright. Standard violet-maroon, wings violet; large size, hooded form. Fine
Janet Scott. Bright pink and buff; very pretty. . . . . . . . . . . . . . . . . . . . . . . . . . Io
Katharine Tracy. Soft brilliant pink.
King Edward VII. Bright crimson, very large flowers. Splendid sort
Lady Grisel Hamilton. Light lavender standard, sky-blue wings; splendid..
Lady Mary Currie. Orange-pink, shaded rosy lilac
Lady Nina Balfour. Very beautiful mauve....................................... . . . 10
Little Dorrit. Pink standard; white wings; beautiful.
Lottie Eckford. Rose and white, edged with blue.
Lovely. Deep rose standard and wings, shading to pale pink at edges ........... Io
Maid of Honor. Almost white, with light bluish lavender edge. . ............... . 10
Majestic. Deep pink, self-colored; very large flowers of finest form ............ . . 10
Marchioness of Cholmondeley. Light salmon, buff-cream standards, wings light buff.
Mars. Bright red, self-colored; hooded form. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10
Miss Willmott. Large, orange-pink
Modesty. White, tinted pink.
Mrs. Alfred Watkins. Standard pink, shading to buff; wings blush, shading to rose. Gladys Unwin type .
Mrs. Dugdale. Beautiful deep rose; unexcelled for cut-flowers . .

10

Nora Unwin. Pure white, very large, open wavy form . . . . . . . . . . pkt., 10 cts..
Othello. Glossy maroon. Self-colored. Elegant10
10Pink Friar. Rose-carmine, suffused on white.
Prince Edward of York. Cerise standard and crimson wings. Large, open formand vigorous vine.

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            \(20 \quad 50\)
            \(\begin{array}{ll}25 & 80 \\ 25\end{array}\)
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## J. M. THORBURN \& CO., 33 BARCLAY ST., NEW YORK

## SWEET PEAS, continued

## All five cents per packet except where quoted otherwise

3936
3938
3940
3942
Shasta. Pure white; very large open form
3944 Stella Morse. Primrose, flushed pink; very beautiful
3946 Sue Earl. Very pretty primrose, edged with mauve
Sue Earl. Very pretty primrose, edged with mauve . . . . . . . . . . . . . . . 10
Siby Eckford. Standard light salmon and buff, wings buff; medium large, open

3948 Triumph. Crimson-pink, with rosy wings pkt., 10 cts... ${ }^{30}$
3950 Venus. Salmon-buff; standard delicately shaded with rosy pink ................ 20
3952 White Wonder. Double-stemmed, many-flowered; pure white

## SPENCER VARIETIES

## All 10 cts. per packet

Burpee's White Spencer. Flowers of enormous size, pure white; waved, crinkled, and fluted standards; wings fully an inch wide
3956 Burpee's Primrose Spencer. On same style as above. Color pronounced primrose or creamy yellow throughout

I5
30 I 00
$395^{8}$ Bolton's Pink. Orange or salmon-pink, veined with rose. Large size, semihooded form

20
50 I 50
3960 Countess Spencer. Bright, clear pink, a little deeper at edges; open form, wavy petals. Very large standard and wings
$20 \quad 50$ I 50
3962 Frank Dolby. Pinkish lavender, of large size; bold, wavy standards .............. 25
3964 George Herbert. Bright rose-carmine; large, open wavy form ............... 20
3966 Helen Lewis. Crimson-orange standard; wings orange-rose. Very large. . . . . . . 20
3968 John Ingman. Rose-carmine; gigantic fluted flowers. Profuse bloomer........ 20
3972 Mrs. Collier. Deep primrose; extra-large, and of fine form..................... 20
3976 Phenomenal. White, shaded and edged lilac; very large-hooded; wavy petals .... 20
3978 Queen Victoria. Light primrose, self-colored, over medium size; fine form; hooded
3980 Mixed Spencers.

## SWEET PEAS IN MIXTURE



## DWARF CUPID SWEET PEAS

## All 5 cts. per packet

A distinct race of Sweet Peas, growing only about 6 inches high. Of compact, bushy habit, and with flowers as large and fragrant as those of the tall sorts. Excellent for pots, borders or masses.

| 9 | Apple Blossom. Bright pink and blush; finely shaded |
| :---: | :---: |
| 3990 | Beauty. Rosy white, suffused carmine; very pretty ... |
| 3991 | Captain of the Blues. Splendid deep blue color |
| 3992 | Firefly. Dazzling bright scarlet; most effective |
| 3993 | Mauve Queen. Rich mauve on primrose ground |
| 3994 | Primrose. Light primrose-yellow |
| 3995 | Royalty. Rich, deep rose-pink; self-colored |
| 3996 | White. Large, pure white flowers; very floriferous |
| 3997 | Mixed. |

## PERENNIAL PEAS AND OTHER SPECIES (Lathyrus latifolius, Etc.)

These have not the fragrance of Sweet Peas, but bloom through a long season, are hardy, and will live for years. They make a beautiful screen for rock, stumps, fences, etc. Height, 2 to 8 feet. Pkt. Oz. 3998 latifolius, Crimson (hP). Brilliant-flowered; perhaps the handsomest form of the type \$0 05 \$o 40 3999 " Pink Beauty (hP). Blossoms white, veined, edged and shaded rose-pink ... $05 \quad 40$
4000 " White (hP). Valuable for cut-flowers in midsummer ..................... . . . . 10 5?
4001 Lord Anson's Blue (hA). Strong-growing; dark purple-blue; 3 to 5 feet............... 05 . 15
4002 Lord Anson's White (hA). A pretty white form of the above . . . . . . . . . . . . . . . . . . . . 05
4003 Splendens (Pride of California) (hP). Large pale rose flowers. ....................... . . . 10

# General List of Flower Seeds 

FLOWER SEEDS DELIVERED FREE BY MAIL ON RECEIPT OF THE STATED PRICE. PRICE PER OUNCE OR POUND FOR THOSE NOT QUOTED, ON APPLICATION

## Explanation of Signs Employed in this List

The asterisk (*) designates ornamental-leaved plants. This mark ( $\ddagger$ ) prefixed indicates the climbers.
The third column presents in figures the comparative time of flowering, thus :
I designates early-blooming in spring and early summer.
2 designates intermediate-blooming in midsummer. 3 designates late-blooming in late summer and autumn.
The fourth column gives the duration of character, and hardiness.

| A represents Annual-lasting but one year. | S represents Shrubs-plants of bushy habit. |  |
| :---: | :---: | :---: |
| B | " | Biennial-lasting two years. |
| $\mathbf{P}$ | " | Perennial-lasting three or more years. |

As a large number of Biennials and Perennials, if sown early, flower the first season, this distinguishing mark ( $\dagger$ ) is affixed to such.

The hardiness is denoted by the foilowing abbreviations, but it should be understood that this is intended to apply to the climate of the Middle Atlantic states. Further north or south these designations apply only in a comparative way.
$h$ represents hardy-plants for open border. hh represents half-hardy-plants that require to be forwarded in pots or frames. $t$ represents tender-requiring protection.

|  | NUMBER AND NAME <br> 1/4 oz. at oz. rate only on articles quoted at $\$ 1$ per oz. and over. | Time of <br> Flowering | Hardiness and Duration | Color of the Flower | $\begin{gathered} \text { Height } \\ \text { in } \\ \text { Feet } \end{gathered}$ | $\begin{gathered} \text { Price } \\ \text { per } \\ \text { Packet } \end{gathered}$ | GENERAL OBSERVATIONS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4004 | Abobra | 23 | tA | gr | 6 | cts. | Bears pretty scarlet fruits. |
| $\begin{aligned} & 4006 \\ & 4008 \end{aligned}$ | Abronia umbellata -grandiflora.. | .$^{2}$ | hA | rose | trail. | 5 | $\left\{\begin{array}{l} \text { Elegant trailers. Do best in } \\ \text { light, sandy soil. Sow in } \\ \text { open ground in May. } \end{array}\right.$ |
| 40 | brus | $23$ | $\begin{aligned} & \mathrm{gP} \\ & \mathrm{gS} \end{aligned}$ | purple <br> d. red |  | 5 |  |
| 4012 | Abutilon compactum, "Fireball" |  |  |  | 4 | 25 | $\left\{\begin{array}{l}\text { Free-growing d e c or a tive } \\ \text { shrubs; bright bell-shaped }\end{array}\right.$ |
| 4013 | Edouard Lagueillon |  |  | mixed |  |  | shrubs; bright bell-shaped flowers. Suitable for house, greenhouse or garden. |
| 4018 |  |  |  |  |  |  |  |
| 4024 | Acacia dealbata | 1 |  | yellow | 6 | 10 | Greenhouse shrubs, with |
| 4025 | cultriformi |  |  | . | $\cdots$ | 10 | graceful branches and fine |
| 4026 | Fecurrens |  |  |  | . | 5 | racemes of yellow flowers, |
| 4028 | Baileyana |  |  |  | 6-10 | 10 |  |
| 4029 | lophantha |  |  |  | 6 | 5 | en plant in sandy peat in |
| 4030 | melanoxylon |  |  |  |  | 10 | a temperature of $55^{\circ}$ to $60^{\circ}$. |
| 4031 | mollissima floribunda |  |  |  | 7 | 10 | 403 I is a very charming, |
| 4038 |  |  |  | mix |  | 5 | $\left\{\begin{array}{l} \text { Leaves are ornamental and } \\ \text { valuable for decorative pur- } \\ \text { poses. } \end{array}\right.$ |
| $\begin{aligned} & 4044 \\ & 4045 \end{aligned}$ | Acanthus spinosus |  | hP | white purple | 3 | 5 |  |
| 4047 | Achillea Ptarmica, Double, "The Pearl" |  |  | ite | I ${ }^{\frac{1}{2}}$ | 10 | $\left\{\begin{array}{l} \text { Free bloomer; fine for florists } \\ \text { for cut-flowers. } \end{array}\right.$ |
| 4048 | Achimines, Best Mixed Aconitum - | 2 |  |  |  | 25 | Saved from finest collection. |
| 4049 | Columbianum |  | hP | blue |  | 25 | Hardy, popular plants, with panicles of helmet-shaped flowers. |
| 4050 | Napellus (Monk's Hood) |  |  | mixed |  | 555 |  |
| 4051 | pyramidatum |  |  |  | 4 |  |  |
| 4056 | Mixed |  |  |  |  | 5 |  |
| 4062 | Acroclinium roseum |  | hha | v. \& ro. white mixed rose white | 1 |  | Graceful plants, with everlast ing flowers, much used for winter decorations. Flowerheads should be gathered when young, to be preserved. |
| 4063 | -album |  |  |  |  | 5 |  |
| 4064 4065 | -Mixed |  |  |  |  | 5 |  |
| $\begin{aligned} & 4065 \\ & 4066 \end{aligned}$ | -Double Rose |  |  |  |  | 5 |  |
| 4068 | Adenophora Potanini |  | hP | 1. blue |  | 25 | A fine variety. Beautiful climber. |
| 4072 | $\ddagger$ Adlumia cirrhosa | 2 | hB | pink | 15 | 10 |  |
| 4078 | Adonis autumnalis ....oz., 25 c . | $\begin{array}{r} 23 \\ 1 \end{array}$ | $\begin{aligned} & \mathrm{hA} \\ & \mathrm{hP}^{\circ} \end{aligned}$ | scarlet crim. yellow |  | $\begin{aligned} & 5 \\ & 5 \\ & 5 \end{aligned}$ | $\left\{\begin{array}{l} \text { Attractive, bright flowers. } \\ 4080 \text { is a very fine hardy } \\ \text { perennial. } \end{array}\right.$ |
| 4079 | æstivalis........ . . . . . oz., 25 c . |  |  |  |  |  |  |
| 4080 | vernalis |  |  |  |  |  |  |

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|  | NUMBER AND NAME <br> $1 / 4 \mathrm{oz}$. at oz. rate only on articles quoted at <br> $\$ 1$ per oz. and over. | Time of Flowering | Hardiness and Duration | Color of the Flower | $\begin{aligned} & \text { Height } \\ & \text { In } \\ & \text { Feet } \end{aligned}$ | Price per Packet | GENERAL OBSERVATIONS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4086 4092 | Agapanthus umbellatus Agathæa cœlestis. Ageratum Agrostemma- | I | tP | blue | I | $\begin{gathered} \hline \text { cts. } \\ \text { IO } \\ \text { IO } \end{gathered}$ | African Lily. Beautiful. <br> "Blue Daisy." Winter bloom. See page 67 . |
| 4098 | Cœli-Rosa (Rose of Heaven). | 23 | hA | rose |  | 5 | e Rose of Heaven is very |
| 4099 | -alba. |  |  | white |  | 5 | free - flowering and easily |
| 4104 | coronaria (Rose Campion) |  | $\dagger \mathrm{hP}$ | rose |  | 5 | grown. Fine for beds. The |
| 4105 | -Dark Blood-Red |  |  | d. red |  | 5 | Rose Campion is a perennial |
| 4106 | -White. |  |  | white |  | 5 | species, free-blooming and |
| 4109 | -Mixed............. oz., 40 c . |  |  | mixed |  | 5 | very pretty. Excellent for |
| 4110 | Flos Jovi |  |  | rose |  | 5 | naturalizing in dry situations |
| 4116 | Alonsoa grandiflora | 13 | hhA | scarlet | 2 | 5 | Bright little annuals of fine |
| 4117 | -alba |  |  | white |  | 5 | habit; require some protec- |
| 4118 | linifolia |  |  | scarlet | $1 \frac{1}{2}$ | 5 | tion in cold weather. Sow in |
| 4119 | myrtifolia |  |  |  | $2 \frac{1}{2}$ | 5 | hotbed, and plant out early |
| 4120 | Warscewiczi |  |  |  | 2 | 5 | in May. |
| 4122 | Alsine pinifolia | 23 | hP | white | $\frac{1}{2}$ | 10 | Very pretty for edgings. |
| $\begin{aligned} & 4128 \\ & 4129 \end{aligned}$ | Alstrœmeria pulchella Mixed | 12 | gP | yel. \& r mixed | 3 | $\begin{aligned} & 10 \\ & 10 \end{aligned}$ | $\left\{\begin{array}{l}4 \mathrm{I} 28 \text { is a brilliant yellow, with } \\ \text { red streaks. }\end{array}\right.$ |
|  | Althæa |  |  |  |  |  | See Hollyhocks, page 80. |
|  | Alyssum |  |  |  |  |  | See page 67 . |
| 4135 | *Amaranthus Abyssinicus | 23 | tA | d. red |  | 5 | Strong-growing, highly orna- |
| 4136 | * bicolor ruber |  |  | red | 2 | 5 | mental plants. The tricolor |
| 4137 | *cruentus (Prince's Feather).. |  |  | d. red | 3 | 5 | varieties are very valuable |
| 4138 | *caudatus, "Love-Lies-Bleeding" |  |  |  |  | 5 | for bedding, having elegant ornamental foliage, varie- |
| 4139 | * coleifolius |  |  |  |  | 5 | gated crimson, yellow and |
| 4140 | *Henderi. |  |  | cr. \& y | , | 5 | green; also well adapted for |
| 4142 | *melancholicus ruber . . . . . |  |  | red | $2 \frac{1}{2}$ | 5 | growing in pots. Of easy cul- |
| 4144 | *salicifolius (Fountain Plant). | - . |  | purple |  | 10 | ture, doing best in rich, loam |
| 4146 | *tricolor (Joseph's Coat) . . . | . . |  |  | diff. | 5 | soil. For best results, sow in |
| 4147 | *-giganteus. |  |  |  | - 6 | 5 | hotbed in April and plant |
| 4148 | *-splendens |  |  |  | 3 | 10 | out the end of May. Please |
| 4150 | Fine Mixed...........oz., 20 c . Collection of Amaranteus, including 12 of the best sorts | . $\cdot$ |  |  |  | 5 50 | note that seed saved from the finest sorts frequently produces inferior plants. |
|  | Amethyst. |  |  |  |  |  | ee Browallia. |
| $\begin{aligned} & 4160 \\ & 4164 \end{aligned}$ | Ammobium alatum -grandiflorum. . | ${ }^{2}$ | hhP | white |  | 5 | Pretty everlastings of easy cultivation. |
| 4170 | Anagallis, in v | 13 | hhA | mixed |  | 5 | $\left\{\begin{array}{l} \text { For sunny situation. Fine bor- } \\ \text { der plant. } \end{array}\right.$ |
| 4200 | Anchusa | 2 |  |  | $1 \frac{1}{2}$ | 5 | ) Very attractive. Fine for cut- |
| 4220 | Barrelieri. |  | hP | d. blue |  | 10 | flowers and bouquets. |
| 4231 | Anemone coronaria- <br> "St. Brigid" Poppy-flowered. | 1 |  | mixed |  | 10 | autiful spring flowers, re- |
| 4232 | Japonica rosea. | 3 |  | rose |  | 10 | quiring rich, deep soil. 4233 |
| 4233 | -alba |  |  | white | - | 10 | has large, pure white flowers, |
| 4234 | globosa |  |  | red | 1 | 25 | invaluable for cutting. 4234 |
| 4236 | sylvestris |  |  |  | $1 \frac{1}{2}$ | 10 | is the Red Anemone. |
| 4240 | Angelonia grandiflora |  | gP | purple | 1 | 25 | ine, sweet-scented; for pots. |
| 4242 | Anthemis Arabica |  | hA | yellow |  | 5 | Pretty golden yellow flowers. |
| 4246 | Antigonon leptopus |  | gP | pink | diff. | 10 | retty greenhouse climber. |
|  | Antirrhinum |  |  |  |  |  | e Snapdragon, page 92 |
|  | Aquilegia. |  |  |  |  |  | See page 68. |
| 4250 | Arabis alpi |  | hP |  |  | 5 | ) 4250 is "Rock Cress;" 4254 is a rare species. |
| 4254 | rosea . . |  |  | rose | 1 | 50 |  |
| 4258 | Arctotis grandis | 2 | hA | w. \& y. | 2 | 10 | Fine for cutting. |
| 4260 | Ardisia crenulata | 23 | gS | red | 5 | 25 | fFine decorative plant, bearing bright coral berries. |



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|  | NUMBER AND NAME <br> $1 / 4$ oz, at oz. rate only on articles quoted at $\$ 1$ per oz. and over. | $\begin{gathered} \text { Time } \\ \text { of } \\ \text { Flowering } \end{gathered}$ | $\begin{gathered} \text { Hardiness } \\ \text { and } \\ \text { Duration } \end{gathered}$ | Color of the Flower | $\begin{aligned} & \text { Height } \\ & \text { in } \\ & \text { Feet } \end{aligned}$ |  | GENERAL OBSERVATIONS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 4640 \\ & 4646 \end{aligned}$ | Cockscomb <br> Coffea Arabica <br> *Coleus. Fine hybrids . Collections, including12 varieties Coleus 6 varieties Coleus | 23 | gS gP | white <br> mixed | 5 2 | 25 25 \$1 25 75 | See page 75 . <br> $\{$ Coffee Tree. Very ornamental. White fl'rs, scarlet berries. <br> Splendid bedding plants, with beautifully colored foliage. Very useful for decorative purposes. |
| $\begin{aligned} & 4650 \\ & 4651 \\ & 4652 \\ & 4654 \\ & 4656 \\ & 4657 \\ & 4658 \\ & 4659 \\ & 4662 \end{aligned}$ |  |  | hA | purple <br> p. \& w. <br> white <br> blue <br> w. \& ro. <br> bl. \& p. <br> mixed |  | 5 5 5 5 5 5 5 5 5 | Free-flowering Annuals. If sown in autumn, will stand the winter and flower early in spring. All the species are brightly colored, and excellent for growing in patches or clumps; easily grown in any garden soil. |
| $\begin{aligned} & 4668 \\ & 4669 \end{aligned}$ | Collomia coccinea. <br> oz., 25 c grandiflora <br> oz., 25 c <br> Columbine. |  |  | s. \& y. yellow |  | 5 | ) Fine for bees; suitable for massing. <br> See Aquilegia, page 68. |
| $\begin{aligned} & 4675 \\ & 4676 \\ & 4678 \end{aligned}$ | Commelyna *-alba... | . ${ }^{\text {I }}$ | hhP | blu e white var. | I $\begin{array}{r}1 \\ \cdot \\ 2\end{array}$ | 5 5 5 | $\left\{\begin{array}{l}\text { Showy, favorite plants for pots } \\ \text { and gardens, where they } \\ \text { grow finely. }\end{array}\right.$ |
| $\begin{aligned} & 4684 \\ & 4685 \\ & 4686 \\ & 4690 \end{aligned}$ | $\ddagger$ Convolvulus, Tallaureus superbus. . major, Morn'g-Glory .oz., I5c. -Double Morning-Glory Mauritanicus. |  | $\begin{aligned} & \text { hhA } \\ & \text { hA } \\ & \text { hP } \end{aligned}$ | gold mixed blue | 5 10 trai. | 10 5 5 10 | $\left\{\begin{array}{l}\text { Pretty; fine for baskets; good } \\ \text { for screens. } 4686 \text { has large } \\ \text { flowers in great variety of } \\ \text { exquisite colorings and hand- } \\ \text { some foliage. For Japanese } \\ \text { Morning-Glory, see page } 83 .\end{array}\right.$ |
| $\begin{aligned} & 4696 \\ & 4697 \\ & 4698 \\ & 4699 \\ & 4702 \\ & 4704 \end{aligned}$ | Convolvulus, Dwarftricolor. .............. oz., 25 c . <br> -White..............oz., 25 c. <br> -unicaulis..........oz., 25 c. <br> -Crimson-violet .....oz., 25 c. <br> —Rose...............oz., 25 c. <br> —Mixed............. oz., ${ }^{5}$ c. <br> Collection, including- <br> 8 vars. Convolvulus minor. |  | hA | white purple crim. rose. mixed |  | 5 5 5 5 5 5 35 | These are fine Dwarf MorningGlories for growing in clumps or beds, or for edging, and well adapted for rockeries and hanging baskets; bloom for a long time. |
| $\begin{aligned} & 4710 \\ & 47 I I \end{aligned}$ | *Cordyline austr <br> *indivisa linea <br> Coreopsis. <br> Cornflower | 3 | gS | whit | 3 | 10 | Beautiful foliage plants for $\int$ vases or decorations. <br> See Calliopsis, page 69 . <br> See Centaurea Cyanus, page 73. |
| 4720 | Cosmidium Cosmos | 2 | hA | orang | 2 | 5 | Very showy. <br> ee page 75 . |
| 4726 | Cotton (Gossypium) | 23 | tA |  | 3 | 5 | Curious; for pots and gardens. |
| 4729 | Cowslip (Primula ver | 1 | hP | mixe | $\frac{1}{2}$ | 10 | avorite spring flower. |
| 4735 | Crucianella stylosa. ${ }_{\dagger}{ }^{\text {Cucumis- }}$ | 23 |  | cr.* ${ }^{\text {pink }}$ |  | 5 | Crosswort. |
| 4740 4741 | erinaceus (Hedge-hog Gourd) acutangulus (Rag Gourd). |  | hhA | yellow | 8 | 5 | Of extremely rapid growth, bearing curious fruits. 4741 |
| 4742 | flexuosus (Snake Cucumber) | 23 |  |  | 10 | 5 | is the Rag or Dish-cloth |
| 4743 4744 4748 | grossulariæformis (Goose - <br> berry Gourd) <br> odoratissimus (Pomegranate <br> Melon) <br> perennis (very fine). | 23 | hhP |  | 15 | 5 | Gourd, the peculiar interior of which is useful in the kitchen when properly prepared. |
|  | Cucurbita |  |  |  |  |  | See Gourds, page 108. |
| 4754 | Cuphea minia | 3 | $\dagger$ hhP | crim. | 1 |  | hese are very pretty green- |
| 4755 | platycen | 13 |  |  |  | 25 | house plants, and are also |
| 4756 | purpurea | 3 |  | purple |  | 5 | good for the border, being |
| 4757 | eminen |  |  | s. \& y . | $1 \frac{1}{2}$ | 10 | continually in bloom. No. |
| 4758 4762 | Røzzlii . strigulos | I 3 |  | yel. \& r. violet | I | 25 | 4755 is well known as "Cigar Plant." |




eschscholtzia (see page 76)


ANTIRRHINUM (see page 92)


CANDYTUFT (see page 70)

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Fine; lemon-scented foliage.
$\left\{\begin{array}{c}\text { (Edelweiss.) Found in the } \\ \text { Alps. }\end{array}\right.$
Beautifully formed flowers and elegant foliage. 5407 has
large golden flowers.

Fine for edging or rockeries; mineus has very beautiful carmine flowers.

Kansas Blazing Star. Pretty.

Snapdragon-shaped flowers; desirable for edging, and very good for rockwork.
(Flax.) Free-flowering plants, Elegant foliage, and flowers of curious structure.

Trumpet-shaped flowers.
\{Pretty and interesting bedding plants. ful and ornamental; tall habit.
(Nigella.) Curious and ornagrown and hardy. Also called "Devil-in-a-bush."

A large genus of ornamental 5500 grows 5 or 6 feet high; lovely dark blue flowers. Some varieties are charming, having spikes of highly colored flowers, silver foliage will produce the finest plants and flowers. Dwarf species make best bedding plants. tive, bright, easily grown.
Brilliantly colored border plants; 5519 is a superb vaHaageana hybrids. 552 I , is the dwarfest variety. Fine for

Violet Aster. Large showy
Handsome florers: should be
in a shady position.

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## J. M. THORBURN \& CO., 33 BARCLAY ST., NEW YORK



See page 90 .
See page 9 I.
\}Showy, hardy border plants.

These are the hardy Primroses. "Queen of Primroses." $P$. Forbesi has pretty rosy lilac flowers, and is fine for pots. frames, will begin to bloom in May. No. $5^{874}$ is a very beautiful and rare species.

House or conservatory plants; floriferous and long-bloomfor table decoration; keep fresh in water many days.

From primus, first, referring to their early-flowering. The Chinese Primroses (Primula Sinensis) are fine for winter and spring blooming; are ally valuable for cut-flowers or for house and window culure, a cool place suits them the finest colors and largest flowers. Seed should be final potting a richer soil is


PRIMULA (see page II4)



PYRETHRUM (see page in6)

portulaca (see page 9I)


\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \& \begin{tabular}{l}
NUMBER AND NAME \\
\(1 / 4 \mathrm{oz}\). at oz. rate only on a rlicles quoted al \\
\(\$ 1\) per oz. and over.
\end{tabular} \& \begin{tabular}{l}
Time of \\
Flowering
\end{tabular} \& \begin{tabular}{l}
Hardiness \\
and Duration
\end{tabular} \& Color of the Flower \& \[
\begin{aligned}
\& \text { Height } \\
\& \text { in } \\
\& \text { Feet }
\end{aligned}
\] \&  \& GENERAL OBSERVATIONS \\
\hline 6006 6008 6009 6012 \& \begin{tabular}{l}
Saponaria Calabrica . . .oz., 40c. \\
-alba \\
-Scarlet Queen ocymoides
\end{tabular} \& \[
\begin{array}{ll}
2 \& 3 \\
\dot{C} \& . \\
i \& 2
\end{array}
\] \& hA
hP \& red white scarlet red \& I

$\frac{i}{2}$ \& cts.
5
5
5
5 \& Pretty dwarf bedding plants. Should be cultivated for their beauty and long blooming. <br>

\hline 6020 \& Saxifraga, Mixed Perenn \& 2 \& \& mixed \& $\frac{3}{4}$ \& 10 \& $$
\left\{\begin{array}{c}
\text { Curious little plants; especially } \\
\text { adapted for rockwork. }
\end{array}\right.
$$ <br>

\hline $$
\begin{aligned}
& 6026 \\
& 6027
\end{aligned}
$$

\[
6028

\] \& | Scabiosa candidissima fl. pl.... - Snowball |
| :--- |
| Black Purple(MourningBride) | \& 23 \& hA \& white \& $2 \frac{1}{2}$ \& \[

$$
\begin{aligned}
& 5 \\
& 5
\end{aligned}
$$
\] \& <br>

\hline $$
\begin{aligned}
& 6028 \\
& 6029
\end{aligned}
$$ \& Black Purple(MourningBride) minor aurea fl. pl. \& \& \& purple golden \& \& 5 \& <br>

\hline 6030 \& Caucasica (splendid) . \& \& hP \& lilac \& \& 10 \& All very showy border plants, <br>
\hline 6034 \& Mixed Tall.........oz., 40 O . \& \& hA \& mixed \& \& 5 \& with beautifully variegated <br>

\hline 6035 \& Dwarf Double Mixed oz., 40c. Collections, including8 vars. Dwarf Double 6 vars. Dwarf Double 8 vars. Tall Large-flowered 6 vars. Tall Large-flowered \& \& \& \& $1 \frac{1}{2}$ \& $$
\begin{array}{r}
5 \\
35 \\
30 \\
35 \\
30
\end{array}
$$ \& nary garden soil. 6029 is a beautiful golden yellow variety. <br>

\hline 6040 \& Schizanthus Grahami \& \& hha \& s. \& \& 5 \& (Elegant and free-blooming an- <br>
\hline 6041 \& pinnatus \& \& \& p. \& $1{ }^{\frac{1}{2}}$ \& 5 \& nuals. Large, beautiful flow- <br>
\hline 6042 \& papilionaceus \& \& \& bk.eyd. \& \& 5 \& ers of many colors, fine for <br>
\hline 6043 \& retusus \& \& \& r. \& o. \& 2 \& 5 \& bedding. Grown in pots in <br>
\hline 6044 \& -albus \& \& \& white \& I $\frac{1}{2}$ \& 5 \& early spring in greenhouse, <br>
\hline 6046 \& Wisetonensis. Fine pot plant. \& \& \& va \& \& 25 \& become fine foliage plants <br>
\hline 6048 \& Mixed . . . . . . . . . . . . oz., $30 c$. Collections, including 6 varieties Schizanthus. \& \& \& mixed \& diff. \& 5
30 \& with masses of blossoms. 6046 is a long-flowering, light-colored variety. <br>
\hline 6052 \& Schizopetalon Walkeri \& 2 \& hA \& white \& $\frac{3}{4}$ \& 10 \& Cannot bear transplanting. <br>
\hline 6060 \& Scotanthus tubiflorus \& 3 \& tP \& \& 15 \& 25 \& Handsome ornamental gourd. <br>
\hline 6064 \& Sedum cœruleum. \& \& hA \& blue \& $\frac{1}{4}$ \& 10 \& (Stonecrop.) Showy little <br>
\hline 6065 \& Maximowiczii \& \& hP \& yellow \& 1 \& 10 \& $\}$ plants, excellent for carpet <br>
\hline 6066 \& Mixed \& \& \& mixed \& $\frac{3}{4}$ \& 10 \& beds. Plant in sandy soil. <br>
\hline \& Senecio \& \& \& \& \& \& See Jacobæa, page iro. <br>
\hline 6072 \& Sensitive Plant .......oz., 75 c . \& 23 \& tA \& pink \& \& 5 \& (Mimosa.) Pretty and curious. <br>
\hline 6080 \& Silene Armeria \& \& hA \& red \& 2-3 \& 5 \& <br>
\hline 6081 \& -alba \& \& \& white \& \& 5 \& (Catchfly.) Bright-colored, <br>
\hline 6082 \& -Mixed ......... . . oz., 200. \& \& \& mixed \& i \& 5 \& free-flowering annuals, suitable for rockwork or open <br>
\hline 6084
6086 \& pendula, Rose \& \& \& rose \& I \& 5 \& able for rockwork or open border. S. pendula is largely <br>
\hline 6088 \& -ruberrima \& \& \& \& \& 5 \& grown for spring flower gar- <br>
\hline 6089 \& -Bonnetti, dark stems \& \& \& \& \& 5 \& dening. They succeed in <br>
\hline 6090 \& -Mixed . . . . . . . . . . oz., 2 \& \& \& mixed \& \& 5 \& any light, loamy soil. <br>
\hline 6092 \& ori \& \& $\dagger \mathrm{hP}$ \& rose \& 2 \& 5 \& <br>
\hline 6095 \& Sinningia Regi \& \& gA \& p. v. \& $\frac{3}{4}$ \& 50 \& $\left\{\begin{array}{l}\text { (Christmas Berry.) Beautiful } \\ \text { gloxinia-like plant. }\end{array}\right.$ <br>

\hline 6098 \& | $\ddagger$ Smilax (Myrsiphyllum asparagoides) $\qquad$ |
| :--- |
| Snapdragon | \& 23 \& gP \& white \& 6 \& 10 \& f For table and house decoration. Fine for florists. See page 92. <br>

\hline 6104 \& Solanum, White Egg \& 3 \& tA \& \& 1 \& \& The Solanums are very orna- <br>
\hline 6105 \& Scarlet Eggplant \& \& \& scarlet \& \& 5 \& mental fruit-bearing plants, <br>
\hline 6106 \& Striped Eggplant \& \& \& striped \& 2 \& 5 \& and thrive best in light, rich <br>
\hline 6109 \& Wetherhill's Hybrid \& \& \& blue \& \& 1 \& soil. All are fine decora- <br>
\hline 6110 \& robustum \& 23 \& \& purple \& 3 \& 10 \& tive plants and well worth <br>
\hline 6112 \& capsicastrum \& \& \& yellow \& 2 \& 10 \& cultivating. S. giganteum is <br>
\hline 6114 \& giganteum. \& \& \& white \& 4 \& 10 \& the largest and handsomest <br>
\hline 6115 \& Hendersoni \& \& \& purple \& \& 10 \& of all, having flowers 3 <br>
\hline 6 Ir 6 \& Warscewiczioides. \& \& \& white \& 3 \& 10 \& inches in diameter. No. <br>
\hline 6118 \& Seaforthianum .. Collection, including 6 varieties Solanum \& \& $\dagger \mathrm{tg}$ \& lilac \& 5 \& 10
40 \& 6 II8 is a fine variety of climber with drooping racemes of a delicate lilac color <br>
\hline 6122 \& Sphenogyne speciosa \& 3 \& hA \& yellow \& 1 \& 5 \& Pretty showy annuals. <br>
\hline 6132 \& Spraguea umbellata \& 23 \& hhA \& rose \& $\frac{1}{2}$ \& 25 \& Fine for rockwork or edges. <br>
\hline 6135 \& Stachys lanata \& 3 \& hP \& striped \& 2 \& 5 \& $\left\{\begin{array}{l}\text { Silver-leaved, fine perennial } \\ \text { for edging or borders. }\end{array}\right.$ <br>
\hline
\end{tabular}

|  | NUMBER AND NAME <br> $1 / 4 \mathrm{oz}$. at oz. rate only on articles quoted at <br> $\$ 1$ per oz. and over. | $\begin{gathered} \text { Time } \\ \text { of } \\ \text { Flowering } \end{gathered}$ | Hardiness and Duration | Color of the Flower | $\begin{aligned} & \text { Height } \\ & \text { In } \\ & \text { Feet } \end{aligned}$ | $\begin{gathered} \text { Price } \\ \text { per } \\ \text { Packet } \end{gathered}$ | GENERAL OBSERVATIONS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6140 | Statice Bonduelli | 2 | hA | yello | $1 \frac{1}{2}$ | cts. |  |
| 6142 | sinuata | 23 |  | blue | , | 5 | (Sea Lavender.) Beautiful for |
| 6143 | -candidissima |  |  | white |  | 5 | winter bouquets. Pretty lit- |
| 6145 | Suworowi, bright rose |  |  | rose |  | 5 | tle flowers which ought to |
| 6147 | incana hybrida. |  | hP | mixed | $1 \frac{1}{2}$ | 5 | be in all gardens. |
| 6149 | Perennial Sorts Mixed |  |  |  |  | 5 |  |
| 6154 | Stenactis speciosa |  | hP | purple | 2 | 5 | Showy purple Composite. |
| 6158 | Stephanophysum longifolium |  | hhP | scarlet | $1 \frac{1}{2}$ | 25 | $\{$ An acanthaceous plant, with bright colored flowers. |
| 6162 | Stevia serrata <br> Stocks, German Ten Weeks | 2 | g P | flesh |  | 10 | Fine for bouquets; scented. See page 93. |
| 6164 | Stokesia Cyanea ........ | 23 | hP | blue | 2 | 10 | ("Cornflower Aster.") Pretty. |
| 6174 | StreptocarpusVeitch's Hybrids |  | gP | mixed |  | 50 | $\left\{\begin{array}{c}\text { V e ry ornamental, profuse- } \\ \text { blooming greenhouse plants. }\end{array}\right.$ |
| 6180 | Styrax Japonica | I | hS | white | 6 | 10 | $\left\{\begin{array}{l} \text { Bell-shaped flowers, followed } \\ \text { by white berries. Fine. } \end{array}\right.$ |
|  | Sunflower (Helianthus) |  |  |  |  |  | See page 94. |
| $\begin{aligned} & 6194 \\ & 6196 \end{aligned}$ | Swainsonia alba grandiflora Ferrandi carminea | 13 | g P | carmine | .$^{2}$ | $\begin{aligned} & 50 \\ & 50 \end{aligned}$ | \} Fine greenhouse plants, easily grown in sandy, peaty soil. |
|  | Sweet Peas |  |  |  |  |  | See page 96. |
|  | Sweet Sultan |  |  |  |  |  | See Centaurea, page 73. |
|  | Sweet William |  |  |  |  |  | See page 94. |
| 6212 | $\ddagger$ Tacsonia Van Volxemii | 23 |  | scarlet | 10 | 25 | Beautiful greenhouse vine. |
| $\begin{aligned} & 6218 \\ & 6219 \end{aligned}$ | Tagetes lucida (Sweet-scented) signata pumila. | $\begin{array}{r} 2 \\ 2 \quad 3 \end{array}$ | hA | yellow | I | 5 | Pretty, and fine for edging. \} See also Marigold, page 82 . |
|  | Tassel Flower |  |  |  |  |  | See Cacalia, page 102. |
| 6224 | Tecoma Smithi (splendid) |  | g P | lemon | 6 | 25 | Flowers lemon, flushed orange. |
| 6240 | $\ddagger$ Thunbergia alata | 12 | hha | buff | 5 | 10 | Very ornamental climbers and |
| 6241 | -alba |  |  | white |  | 10 | abundant bloomers. They |
| 6243 | -aurantiac |  |  | orange |  | 10 | are also very effective as |
| 6244 | -Bakeri |  |  | white |  | 10 | bedding plants if a little pains |
| 6246 | -Fryeri |  |  | orange |  | 10 | be taken with them. Thrive |
| 6247 | -sulphure |  |  | sulphur |  | 10 | best in a rich compost of |
| 6252 | -Mixed |  |  | mixed |  | 10 | fibrous loam and sand |
| 6262 | Torenia Fournieri |  | tA | purple | 2 | 25 | For borders and baskets. 6265 |
| 6263 | - "White Wings" | - |  | white |  | 25 | is golden yellow, deep red |
| 6265 | Bailloni | . |  | yellow |  | 25 | throat. 6262 is fine for pots. |
| 6269 | Trachelium cœruleum | 2 | $\dagger \mathrm{hP}$ | blue | $\frac{1}{2}$ | 5 | Useful; border or greenhouse. |
| 6274 | Trachymene cœrulea (Didiscus) | . | hA |  |  | 5 | Fine long-blooming annuals |
| 6278 | $\ddagger$ Trichosanthes colubrina | 3 | tA | white | 10 | 10 | (Snake Gourd, or Serpent Cu- |
| 6279 | coccinea | 2 |  | yellow |  | 10 | cumber.) So called from the |
| 6280 | palmata | 3 |  | white | 15 | 10 | shape of its fruit. |
| 6282 | Trifolium suaveo | 2 | hP | purple | trai. | 5 | An ornamental clover. |
| 6286 | Tritoma uvaria | 23 | hhP | or.-red |  | 10 | ( Red-Hot-Poker Plant.) Has |
| 6287 | MacO |  |  | r. \& yel. | I $\frac{1}{2}$ | 25 | f showy spikes of bloom. |
| 6288 | Trollius hybrid | 12 | hP | mixed |  | 10 | $\left\{\begin{array}{c}\text { (Globeflower.) For beds or } \\ \text { borders. }\end{array}\right.$ |
| 6289 | $\ddagger$ Tropæolum canariense |  | hha | yellow | 10 | 5 | $\int \begin{gathered}6289 \text { is the Canary Bird Flower. } \\ \text { The others are fine for pot }\end{gathered}$ |
| 6290 | pentaphyllum. |  | g P | or. \& y. |  | 10 | culture. See, also, Nastur- |
| 6291 | tricolor grandiflorum |  |  | or. \& br. |  | 25 | tium, pages 85 and 86 . |
| 6293 | Tunica saxifraga | 2 | hhP | white | 1 | 5 | Pretty for rockwork. |
| 6296 | Tydæa hybrida grandiflora |  | g P | mixed |  | 50 | Popular greenhouse plant. |
| 6300 | Valeriana | I | $\dagger \mathrm{hB}$ | white | 3 | 5 |  |
| $6304$ | rubra Mixed |  |  | red mixed |  | 5 | scented flowers. |
|  |  |  |  |  |  |  | \{ Beautiful for borders or pots. |
| 6310 | Venidium calendulaceum | 23 | hhA | orange | I | 5 | \{ Flowers the entire season. |
| 6313 | Venus' Looking-Glass . . oz., 25 c . | 12 | hA | blue | $\frac{3}{4}$ | 5 | (Specularia.) Pretty edging |
| 6314 | White . |  |  | white |  | 5 | $\}$ plant. 6315 gives about 50 |
| 6315 | Double |  |  | blue |  | 5 | per cent of double flowers. |


scabiosa (see page iI7)

stocks (see page 93)
zINNIA (see page 95)

stokesia (see page II8)


## MIXED ANNUALS FOR WILD GARDEN

Bright-colored, summer-flowering, easily grown hardy annuals in the greatest variety for sowing broadcast. Per oz., 10 cts.; $\frac{1}{4} \mathrm{lb} ., 30 \mathrm{cts} . ; \frac{1}{2} \mathrm{lb} ., 55 \mathrm{cts} . ; \mathrm{lb} ., \$ \mathrm{r}$, postpaid.

## ORNAMENTAL GRASSES

Many of these Grasses, if cut before they are entirely ripe, will be found useful in the formation of winter bouquets, in connection with the Everlastings.

\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \& \begin{tabular}{l}
NUMBER AND NAME \\
\(1 / 4\) oz. at oz. rate only on articles quoted at \\
\(\$ 1\) per oz. and over.
\end{tabular} \& \begin{tabular}{l}
Time of \\
Flowering
\end{tabular} \& \begin{tabular}{l}
Hardiness \\
and \\
Duration
\end{tabular} \& Color of the Flower \& \[
\begin{gathered}
\text { Height } \\
\text { in } \\
\text { Feet }
\end{gathered}
\] \& \[
\begin{gathered}
\text { Price } \\
\text { per } \\
\text { Packet }
\end{gathered}
\] \& GENERAL OBSERVATIONS \\
\hline \[
\begin{aligned}
\& 6500 \\
\& 6501 \\
\& 6502
\end{aligned}
\] \& *Agrostis nebulosa pulchella minutiflora \& 2 \& hA \& apet. \& 1 \& cts.
5
5
10 \& Very fine for vases and bouquets. The plumes of \(A\). nebulosa are very delicate. \\
\hline 6506 \& *Andropogon argenteus \& 3 \& hP \& \& 3 \& 5 \& Silky flowers, white hairs. \\
\hline \& Arundo Donax. *-fol. variegatus \& \& \& \& 10 \& 10 \& Subtriopcal plants of stately \} growth; ornamental habit. \\
\hline 6515 \& Avena sterilis \& 2 \& hA \& \& 3 \& 5 \& (Animated Oats.) Curious. \\
\hline \[
\begin{aligned}
\& 6520 \\
\& 6521
\end{aligned}
\] \& Briza geniculata gracilis \& \({ }^{2}\) \& \& \& 1 \& 5
5
5 \& (Quaking Grass.) No. 6522 is very pretty for bouquets. \\
\hline 6528 \& Brizopyrum siculum \& \& \& \& \(\frac{3}{4}\) \& 5 \& Dwarf species of Spike Grass. \\
\hline \[
\begin{aligned}
\& 6534 \\
\& 6535 \\
\& 6536
\end{aligned}
\] \& Bromus brizæformis ...oz., 15 c. macrostachys . . . . . . . oz., i 5 c. madritensis. \& \& \& \& 3 \& 5
5
5 \& \(\left\{\begin{array}{l}\text { No. } 6534 \text { is very fine for winter } \\ \text { bouquets. To this genus } \\ \text { belongs the Cheat Grass. }\end{array}\right.\) \\
\hline 6540 \& Chloropsis Blanchardiana \& \& \& \& \& 10 \& Dwarf; very fine for edgings. \\
\hline 6544 \& Chloris barbata vera \& \& \& \& 1 \& 5 \& For groups and for baskets. \\
\hline 6550 \& Chrysurus cynosuroides \& . \& \& \& \& 5 \& Pretty for edgings. \\
\hline \[
\begin{aligned}
\& 6554 \\
\& 6555
\end{aligned}
\] \& Coix lachryma.oz., roc., lb., 30 c aurea zebrina. \& 2 \& . \& \& I \(\frac{1}{2}\) \& 5 \& \[
\begin{aligned}
\& \text { (Job's Tears.) Seed resembles } \\
\& \text { a tear-drop. }
\end{aligned}
\] \\
\hline 6558 \& Cryptopyrum Richardsoni \& 2 \& \& . \& 2 \& 10 \& Very fine Grass. \\
\hline \[
\begin{aligned}
\& 6560 \\
\& 6561 \\
\& 6562
\end{aligned}
\] \& Elusine barcinonensis corocana Indica \& 23 \& \& \& I \& 5
5
5 \& \[
\left\{\begin{array}{c}
\text { (Crab, or Yard Grass.) } E . \\
\text { Indica is the Wire Grass. }
\end{array}\right.
\] \\
\hline \[
\begin{aligned}
\& 6568 \\
\& 6569 \\
\& 6570 \\
\& 6571 \\
\& 6572
\end{aligned}
\] \& Eragrostis elegans ......oz., i5c. amabilis. Abyssinica maxima. suaveolens \& \(\cdot\)
\(\cdot\)
\(\cdot\)
\(\cdot\) \& - \& \& \& 5
5
5
5
5 \& \[
\left\{\begin{array}{l}
\text { (Love Grass.) Pretty Grasses, } \\
\text { growing about a foot high. } \\
\text { and characterized by their } \\
\text { beautiful dancing spikelets; } \\
\text { fine for bouquets. }
\end{array}\right.
\] \\
\hline 6580 \& Erianthus Raven \& 23 \& hP \& \& 6-8 \& 5 \& (Plume Grass.) Very stately. \\
\hline \[
\begin{aligned}
\& 6584 \\
\& 6585
\end{aligned}
\] \& Eulalia Ja zebrina \& \& \& \& 5 \& \[
10
\] \& Among the most beautiful of ) the tall-growing grasses. \\
\hline 6586 \& Festuca glauc \& . . \& \& \& 2 \& 10 \& (Fescue Grass.) Ornamental. \\
\hline \[
\begin{aligned}
\& 6590 \\
\& 6592 \\
\& 6594
\end{aligned}
\] \& Gymnothrix cau Japonica latifolia \& \& \& \& 2-3 \& 10
10
10 \& \[
\left\{\begin{array}{l}
\text { Grown chiefly as curious and } \\
\text { ornamental grasses. }
\end{array}\right.
\] \\
\hline \[
\begin{aligned}
\& 6596 \\
\& 6597 \\
\& 6598 \\
\& 6599
\end{aligned}
\] \& *Gynerium argenteu *-fol. variegatis *—roseum jubatum \& \& \& \& \& 5
10
10
5 \& \[
\left\{\begin{array}{l}
\text { Dampas Grass.) This is the } \\
\text { noblest of the tall-growing } \\
\text { grasses, and bears magnifi- } \\
\text { cent plumes }
\end{array}\right.
\] \\
\hline 6604 \& Hordeum jubatum ....oz., 20 c . \& \& hA \& \& 2 \& 5 \& (Squirrel-tail Grass.) \\
\hline 6606 \& Isolepis gracilis Job's Tears \& \& tP \& \& \({ }^{\frac{1}{2}}\) \& 25. \& Very pretty rush-like grass. See Coix lachryma, above. \\
\hline 6608 \& Lagurus ovatus . . . . . .oz., 20 c . \& \& hA \& \& 2 \& 5 \& Hare's-tail Grass. \\
\hline 6610 \& Lasiagrostis argentea \& . \& hP \& \& 3 \& 5 \& ine for winter bouquets. \\
\hline 6619 \& Panicum sulcatum \& \& hA \& \& \& 10 \& Very showy and hardy. \\
\hline \[
\begin{aligned}
\& 6622 \\
\& 6623
\end{aligned}
\] \& Pennisetum villosum. . .oz., zoc. Ruppellianum \& \& \& rim \& 1
1

3 \& $$
\begin{array}{r}
5 \\
10
\end{array}
$$ \& ! Ornamental grass. 6623 has ) beautiful crimson plumes. <br>

\hline 6626 \& Poa amabilis \& \& \& apet. \& 2 \& 5 \& Pretty for bouquets. <br>
\hline 6629 \& Setaria alopecuroides nigra \& \& \& \& \& 5 \& Graceful black spikes. <br>

\hline $$
\begin{aligned}
& 6632 \\
& 6633
\end{aligned}
$$ \& *Stipa pennata. . . . . . . . oz., 25 c. elegantissima . . . . . . . . . . . . \& \& \& \& \& \[

$$
\begin{array}{r}
5 \\
10
\end{array}
$$

\] \& \[

\left\{$$
\begin{array}{l}
\text { (Feather Grass.) Grown for } \\
\text { its very graceful plumes. }
\end{array}
$$\right.
\] <br>

\hline 6640 \& Tricholæna violacea \& \& hA \& . \& \& 10 \& A very pretty grass. <br>
\hline
\end{tabular}

| Be | NUMBER AND NAME <br> 1/4 oz. at oz. rate only on a rlicles quoted at \$1 per oz. and over. | Time of <br> Flowering | Hardiness <br> and Duration | Color of the Flower | $\begin{aligned} & \text { Height } \\ & \text { In } \\ & \text { Feet } \end{aligned}$ | Prics <br> per <br> Packet | GENERAL OBSERVATIONS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6645 <br> 6648 <br> 6651 <br> 6652 |  | . $\vdots$ | hA | apet. | 3 6 6 | $\begin{array}{r} \mathrm{cts} . \\ 5 \\ 5 \\ 5 \\ 5 \end{array}$ | Ornamental varieties of Corn. No. 6645 and 6648 have beautifully striped leaves. |
| $\begin{aligned} & 6656 \\ & 6657 \end{aligned}$ | Mixed Ornamental GrassesMixed Tall. ..........oz., ${ }^{25}$ c. Mixed Dwarf........oz., 3 oc. |  |  | . | 4 2 | 5 | These mixtures contain all the \} standard sorts. |

## COLLECTIONS OF ORNAMENTAL GRASSES

25 varieties Ornamental Grasses, one packet of each.<br>So 70 12 55

## PALM SEEDS

Those we offer are imported direct from approved sources in Australia, New Zealand, South America, Central America and the West Indies, and are unexcelled in quality and purity, Fresh seeds arrive throughout the year, as the various species mature, but the greater number come during the spring and summer. The seeds are slow in starting and the germinating period varies, according to the variety, from three weeks to three months. The young plants should be potted in 3 -inch pots in a compost of rotted sods, leaf-mould and sand, and well watered. They grow slowly. As soon as the roots begin to crowd, the plants should be lifted into larger pots, special attention being given to secure good drainage. The plants do well in partial shade, and, to keep the sod cool and to prevent it from quickly drying out, it is well to cover the surface with sphagnum moss. The plants must be kept in an even temperature. Customers are invited to let us book their orders, to be sent from time to time as fresh


Collection of 10 varieties of Palm seeds, by names, our selection, $\$ 1$ each
Throughout the year we have Cycas revoluta stems (Sago Palms) in various sizes direct from Japan

## CHOICE COLLECTIONS OF FLOWER SEEDS



## LIST OF FLOWERS SUITABLE FOR BOUQUETS

> Abronia umbellata
> Ageratum Mexicanum Alyssum maritimum Amarantus tricolor Ammobium alatum Aquilegia chrysantha Aster and Balsam Cacalia coccinea Calliopsis lanceolata Callirhoë pedata
> Candytuft
> Carnation

Centaurea
Centranthus macrosiphon Chrysanthemum inodorum Collinsia bicolor and verna Cosmos and Cuphea
Dahlia, single
Dianthus Chinensis
Digitalis, assorted
Gaillardia
Gaura Lindheimeri
Gilia tricolor
Globe Amaranth

Godetia, assorted
Gypsophila
Impatiens Sultani Kaulfussia amelloides
Leptosiphon
Lobelia Erinus
Malope grandiflora
Marigold
Mignonette
Pansy
Phlox Drummondii
Reseda odorata

Salvia splendens
Scabiosa
Sanvitalia procumbens
Silene, Mixed
Statice, assorted
Stevia serrata
Stocks, Ten Weeks
Sweet Peas
Verbena
Viscaria oculata
Zinnia, all varieties

## GLADIOLI

Gladioli are very easily grown. Any good soil suits them. Plant as soon as all danger from frost is past, about 3 inches deep and 7 or 8 inches apart. By planting at intervals up to the first of July these fine flowers can be had in bloom all through the summer and fall-the later flowers being the best. About the end of October, when the leaves begin to wither, the bulbs should be taken up, dried in the open air, and then stored in a dry place, free from frost, for planting next spring.
*Those so marked are used extensively for forcing.

## NEW YELLOW GLADIOLI

Primulinus. Very rare species from Victoria Falls, South Africa; grows 3 to 4 feet tall and is very vigorous. The flowers are of good size and are a clear prim-rose-yellow. Blooms late in July. 60 cts. each, $\$ 6.5^{\circ}$ per doz.
Primulinus Hybrids. Hybrids of the above, with many related species and choice garden varieties. Extremely vigorous and healthy growers blooming in July and August. Grow 3 to 5 feet high, with long spikes of richly colored blooms, varying in color from clear yellow to crimson, the latter with large soft orange or golden throats. 30 cts . each, $\$ 3$ per doz.
We can also supply seed of the Primulinus type at 25 cts. per pkt.

| VARIOUS MIXED GLADIOLI |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mixed |  |  |  |  | ¹,000 $\$ 14$ 16 |
|  | Varieties of Red and Scarlet ..... \$o White and Light. Standard selection |  | \$1 | 75 | $\begin{array}{rl}\text { \$14 } & \circ 0 \\ 16 & 00\end{array}$ |
|  | White and Light. Extra-fine for |  |  |  |  |
|  | florists' use | 5 | 2 | 75 | $\bigcirc$ |
| " | Striped and Variegated. | 50 | 3 | $\bigcirc$ | 2400 |
| " | Pink and Rose. Extra fine | 40 | 2 | -0 | 16 ०० |
| " | Yellow and Orange. | 70 |  |  | 36 о० |
| " | Hybrids. All colors | 40 | 1 | 50 | 13 ○○ |
|  | Groff's Hybrid Seedlings | 40 | 1 | 75 | 1400 |
|  | Lemoine's. Fine bright colorings |  |  |  |  |
|  | and odd markings.......... | 40 | 1 | 75 |  |
| " | Childsii. Superb large-flowered | 45 |  | 25 | 20 -0 |

## FINE NAMED HYBRID GLADIOLI

Amalthee. Pure white, large violet-red blotch; ground Each Doz. of the corolla velvety violet, lower petals slightly tinged lilac. ..................................... ndre Leroy. Deep cherry,
white blotch and stripe.
Angele. White; showy and effective.
Astarte. Compact spike of large flowers, pale rosy lilac streaked with rose.


UTUMN GIANT. Very brilliant orange-yellow and scarlet, deep golden yellow throats. Splendid spike often 3 feet long, grows 4 to 6 feet high. Blooms from late August until October if planted early. Fine for cutting
Baucis. Fine spike, with large flowers of rose, slightly tinged salmon; blotch dark amaranth-red.
BLUE JAY. New. Rich deep blue. The only real blue Gladiolus on the market. Hardy. .
Brenchleyensis. Bright vermilion-scarlet. per $100, \$ 2.5^{\circ}$
Calypso. Flesh-colored rose, streaked with rose and blotched carmine.
Carnation. Flesh-white, tinged carmine at the edges, the lower petals blotched purplish carmine.........
*Ceres. Pure white, spotted with purplish rose.........
per 100, $\$ 3.5^{\circ}$
Chicago. Compact spike. Very dark carmine-red, with a few almost black stripes, large white blotch and center band.
Christopher Columbus. Large, rosy carmine, flamed red, violet-red blotch on lower petals.
CONTRAST. New. Intense scarlet, pure white center. One of the most striking and beautiful Gladioli in cultivation.
Crepuscule. Splendid spike; flowers lilac-rose, flushed carmine, with violet on the edges of the petals.....
Diamant. Extra-large flowers, flesh-white, with ivorywhite throats, blotched and streaked carmine......

Escarboucle. Dark carmine-red, pure Each Doz. white band and blood-red blotch.... \$0 10 \$1 00
*Eugene Scribe. Fine tender rose, blazed carmine; very large and wide flowers. .
Feu Follet. Well-opened flowers with ivory-white throat, richly tinted and striped with carmine at the edges.
Formosa. Large and perfectly shaped spike. Delicate satiny rose, slightly striped with carmine at the edges.
Fra Diavolo. Bright orange-rose, flushed violet-red at edges; large, pale yellow blotch.
Gen. Phil. Sheridan. Fiery red, with white line running through each petal; blotched white.
Grandesse. Large, well-opened flower; petals fleshy white, slightly suffused with lilac. Carmine blotch.
*Isaac Buchanan. Very fine yellow
*John Bull. White, slightly tinged with sulphur.
*Lamarck (de). Large flowers, cherry tinted orange, blazed red, stained white.
Leviathan. Tall spike of enormously large soft bright rose flowers, flamed and striped carmine; amaranth blotch on creamy white ground.
*Madame Monneret. Delicate rose.
per $100, \$ 3$.
Madame Poiret. Large spikes of coppery rose-colored flowers, with slight golden blotch.
Marechal Vaillant. Very brilliant scarlet, with large pure white blotch.
Matador. Fine spike, flowers brilliant carmine striped and blotched white.
*May. Fine pure white, flaked rosy crimson, superb spike. One of the best for forcing in greenhouse... .... 100, $\$ 3$.
Michigan. Tall, compact spike, large, cherry-red flowers, white blotch.
$15 \quad 125$

15 I 50

15 I 50
$15 \quad 150$
$10 \quad 100$
$20 \quad 175$

15 I 50

IO I 00

| 15 | $I$ | 25 |
| :--- | :--- | :--- |


| 15 | $I$ |
| :--- | :--- |

10 $\quad 75$
$10 \quad 75$

0650

15 I 50
$06 \quad 50$

I5 I 50

Neron. Tall spike; dark crimson, suffused Each Doz. with dark blood-red and violet. . . . . §o 15 \$1 50
Norma. Pure white, occasionally very slightly suffused with pale lilac........ 20 I 75
Octoroon. Beautiful salmon-pink........ I5 I 25
Ophir. Dark yellow, purple blotch..... I5 I 25
Pactole. Yellow, tinged with rose at the
edges, blotch of a darker shade...... $\begin{aligned} & \text { I5 }\end{aligned}$ I 25
Phoebus. Brilliant red, pure white blotch I5 I $5^{\circ}$
Potentat. Carmine-rose blotched scarlet, edged yellow.

20200
PRINCEPS (Amaryllis-flowered Gladiolus). Rich crimson, with broad white blotches across the lower petals.
20200

Proserpine. Large cherry-red flowers banded with slate-color; tall spike....
Reine Blanche. Pure white, dark carmine blotch. . . . . . . . . . . . . . . . . . . . . . . . .
Reverend Berkeley. Light rose, tinged with violet-carmine, white blotch......
Rossini. Dark amaranth-red, streakcd and blotched white.

15 I 50
*Shakespeare. White, very slightly suffused with carmine-rose; large rosy blotch. Fine for forcing
$15 \quad 125$
Suffren. Flowers fresh, bright cherry-rose, carmine blotch, with violet center stripe; very pretty.

10100
SULPHUR KING. New. Clear sulphuryellow. One of the finest of the yellows.
Surprise. Rose-amaranth; very lateblooming variety.

50500

10 I 00
Thalia. White, streaked carmine....... 10 I 00
Thermidor. Large salmon-red flowers, flushed and edged slaty gray.........
Tigridia. Flowers salmon-yellow, flamed with rosy carmine.

15 125

Titania. Beautiful tall spike, creamy salmon, flamed cherry. . . . . . . . . . . . . . . .
Van Dael. Large flowers of a delicate sal-mon-rose at the center, streaked with blood-red at the top of the petals. .

15

## GIANT CHILDSII GLADIOLI

Very tall and erect, often 4 or 5 feet high, with spikes of bloom over 2 feet long. The flowers are of great substance and of gigantic size, frequently 7 to 9 inches across. Every color known among Gladioli.

| *America. Soft flesh-pink, tinged laven- Each der; erect spike. |  | $\begin{aligned} & \text { Doz. } \\ & \text { \$I } 25 \end{aligned}$ |  |
| :---: | :---: | :---: | :---: |
| Attraction. Deep rich crimson, pure white throat. | 15 | I | 50 |
| BLANCHE. Pure snow-white, faintly marked. | 25 | 2 | 50 |
| Brilliant. Orange-red, with carmine and white throat. | 15 | I | 25 |
| Columbia. Light orange-scarlet, blotched and penciled bluish purple. | 10 | 1 | 00 |
| Deborah. Dark red, tinged amaranth | ${ }^{5}$ |  | 25 |
| Dr. Sellew. Large spike; deep rich rosy crimson, penciled darker. | ${ }^{1} 5$ | I | 25 |
| Florida. Deep dark red; very early | 10 | I | $\bigcirc$ |
| Governor McCormack. Beautiful rose, mottled silvery green, with violet and white mottled throat. | 15 | 1 | 25 |
| Gracilis. Dull red, margined slate-blue. Large flowers. | 15 | I | 25 |

HARLEQUIN. New. Suffused, striped, Each Doz. mottled and spotted white and dark crimson

So 25 \$2 50
Henry Gillman. Deep salmon-scarlet, with pure white bands through each petal; throat peculiarly mottled.
$10 \quad 100$
Little Blush. Dwarf habit; compact spike of blush-white.

[^6]MELROSE. New. White, flaked pink; crimson center. Very large and fine..
Nezinscott. Blood-scarlet, with deep, velvety crimson-black blotches and white mottlings in throat
Oddity. Amaranth-red, throat mottled red and white
$15 \quad 125$
WILD ROSE. New. Very bright rose or blush tint. Exceedingly delicate and pretty

40
$+\infty$
Wm. Falconer. Enormous size; beautiful clear light pink.
${ }^{1} 5$
1 25

Note.-We beg to draw special attention to our very fine Primulinus type and hybrid Gladioli on page 123, introduced by us last season, and to the several new named hybrid sorts and Giant Childsii, listed in larger type. All are worthy of extensive cultivation.

## DAHLIAS (Double)

| CACTUS |  |  |
| :---: | :---: | :---: |
| Arachne. Petals white, edge bright red. . $\mathrm{F}_{0}^{\text {Ea }}$ | ach | $\begin{aligned} & \text { Doz. } \\ & \text { \$I } 50 \end{aligned}$ |
| Amos Perry. Dazzling scarlet, fine form. . | 20 | $\bigcirc 0$ |
| Earl of Pembroke. Bright plum. | 15 | 50 |
| Gloriosa. Splendid crimson. |  | -0 |
| GOLDEN RAY. Flesh color shaded pink and a pricot | 20 | ¢ |
| Island Queen. Soft lavender-pink | 15 | 50 |
| Jennie Pearse. Yellow, medium size. Early | 15 | 50 |
| J. H. Jackson. Deep maroon, almost black. Splendid. | 20 | 200 |
| John H. Roach. Light yellow. | 20 | -0 |
| Kriemhilde. Shell-pink, shading to white in center. | 20 | $\bigcirc$ |
| Mary Service. Pinkish heliotrope, shading to ochre. | 20 | -0 |
| Mrs. H. J. Jones. Salmon-red, tipped pure white. Very fine. | 20 | 200 |
| Mrs. Wm. E. Cook. Crimson. Twisted and incurved petals. | 15 | 50 |
| WINSOME. Pure white, large flowers; fine form. Prolific. | 20 | 200 |
| DECORATIVE |  |  |
| C. W. Bruton. Large, clear yellow....... | 20 |  |
| CUBAN GIANT. Maroon; immense flowers, very double. Splendid. | 25 | 250 |
| Evadne. Primrose-yellow, tipped blush. | 15 |  |
| Henry Patrick. Snow white |  |  |

Katherine Duer. Dazzling crimson; free Each Doz.
flowering, strong grower................ \$0 20 \$200
MADAM VAN DEN DAEL. Soft shellpink, shaded deeper, broad petals. Immense size; fine form....................
Miss Melita Hill. Flesh color, tipped carmine. Free bloomer.
20200

Mrs. Winters. Pure waxy white, large flowers; fine form.

20200
20200

Nymphaea. Pink and white; beautiful. . 15 I $5^{\circ}$
Orange King. Orange scarlet; free flower-
ing.......................................
petals; flowers 4 to 6 inches in diameter;
early and profuse bloomer.
20200
Wm. Agnew. Intense dazzling red....... $20 \quad 200$

| SHOW AND FANCY |  |  |
| :---: | :---: | :---: |
| A. D. Livoni. Clear pin | - ${ }^{\text {ach }}$ | \$1 $\begin{aligned} & \text { Doz. } \\ & \text { \% }\end{aligned}$ |
| Enchantress. Pure white; fine form; free bloomer. | 20 | ${ }_{2} 00$ |
| Maid of Kent. Cherry-red, tipped white. . | 15 | 150 |
| MRS. ROOSEVELT. Delicate pink, shading to clear pink. Immense perfectly double flowers. | 25 | 50 |
| Oakfield. Purple and maroon | 15 | 150 |
| Penelope. White, flaked lavender | 15 | 150 |
| Pride of Orange. Rich yellow, tipped red. | 15 | 150 |
| Storm King. White, very early; profuse bloomer. | 15 |  |
| Sunset. Yellow; large full and deep; good grower. | 20 |  |

## Dwarf Large-Flowering French Cannas

These fine ornamental plants produce bold and striking foliage of dark metallic hues as well as the various shades of green. The flowers range in color from yellow and orange to scarlet and deep crimson, and the plants bloom continuously from the time of planting until cut down by frost.


ORCHID-FLOWERED TYPE, continued
Each Per doz. 100
America. 5 to 6 ft . Bronze foliage,
with large orange, shaded red
flowers.......................... \$0 1о \$1 00 \$600
California. 4 ft . Rich orange..... 15 I $25 \quad 8$ oo
Indiana. 5 ft . Orange flowers of heavy texture.................
La France. 5 to 6 ft . Glowing orange-scarlet. Bronze foliage.. $\mathrm{I}_{5}$ I 2580
Parthenope. 6 to 7 ft . Orange-scarlet, sometimes shaded salmon. Io I 00600
Pennsylvania. 6 ft . The first solid red among the orchid type and one of the best.

10100600

## FOLIAGE TYPE

Grand Rouge. 5 to 6 ft . Dark reddish bronze foliage; bright red flowers....................... \$0 10 \$ 00 \$600
King of the Bronzes. 7 to 8 ft . broad bronze leaves of fine appearance, red flowers.........
Musafolia. 5 to 6 ft . One of the very best foliage sorts, with very bright green foliage, edged with narrow border of bronze; seldom blooms but has small red flowers when it does..


LARGE-FLOWERED JAPAN IRIS

## JAPAN IRIS (Iris Kaempferi)

## SUPERB COLLECTION OF LARGE-FLOWERED SORTS

We have imported from Japan a large supply of the following twenty of the best of these magnificent Irises, which excel in size, perfection of form and richness of color. These are most valuable for cut-flowers and table decoration-as handsome as orchids. Flowers should be cut in the early morning or after sunset. They come in large clumps. The descriptions given are those furnished us by the growers in Japan.

$$
25 \mathrm{cts} \text {. each, } \$ 2.50 \text { per doz., } \$ 18 \text { per } 100
$$

Datedogu. Rich claret-red, orange, blue and white.
Gekka-no-nami (Waves on Moonlight). Dense pure white, yellow blotches.
Shishi-odori (Dancing Lion). Purple and white.
Kumoma-no-sora (Sky Amidst the Cloud). White, skyblue and yellow.
Kumo-no-obi (Band of Cloud). Purple and yellow.
Ho-o-jo (Ho-o-castle). Ruby-crimson, primrose blotches.
Hana-aoi (Hollyhock). Gray, yellow and navy-blue.
Hana-no-nishiki (Floral Embroidery). Brilliant claretred, penciled white, orange blotches.
Yomo-no-umi (Boundless Sea). Gray, blue and yellow.
Kuma-funjin (Excited Bear). Purple, overlaid with navy-blue, orange blotches.
Senjo-no-hora (Angel's Den). Vinous purple-speckled gray, primrose blotches.

Komochi-guma (Bear with young). Violet, double, and having the distinct habit of blooming several close together at the head.
Yezo-nishiki (Yezo-Embroidery). Crimson and white, finely mingled.
Shirataki (White Waterfall). White and primrose; a delicate and pleasing combination.
Kagaribi. Brilliant ruby, yellow blotches; presents striking contrasts.
Shimoyo-no-tuski (Frost Moonlight). Gray-lavender, yellow blotches.
Tora-odori (Dancing Tiger). Gray, overlaid with laven-der-blue, yellow blotches.
Tsuru-no-kegoromo (Crane's Feather). Large, pure white flowers, yellow blotches.
Momiji-no-taki (Maple Waterfall). Crimson-purple, suffused white.
Yedo-kagami. Claret-orange, blue and red-violet; a most striking variation of coloring.

## CATALOGUE OF HIGH CLASS SEEDS

## PÆONIES

Double Pæonies are too well known to require description. Their present popularity is due to the great improvement in them in recent years, their easy culture, the handsome appearance of the plant, and the brilliant and striking effect of their massive, finely formed and richly colored flowers. The attention given to them in Europe and in America has resulted in the production of many notably fine new varieties. Among hardy, herbaceous perennials, the Chinese Pæonies rank about first for lawn or flower-border, or shrubbery decoration. They are all hardy.

Our assortment includes the best and most distinct sorts, new and old. There are many lists including varieties showing but trifling variations, which we omit.

## Herbaceous Chinese Pæonies

## (Paeonia chinensis)

Alba plena. Pure white; Each Doz. sweet scented........ \$० 30 \$3 00 Alba superba (Potsii). Creamy white center, rosy border. ......... 30 Each Doz. Asa Gray. Rosy carmine. A scarce variety $\$_{0} 70 \quad \$ 700$
Charlemagne. Creamy white, center lilac and chamois.
Compte de Niepperg. Bright carmine.

Very early
Delachei. Purplish red; sweet scented..
Edulis. Bright rose; sweet scented.
Festiva Maxima. White. Fine sort.
$35 \quad 3 \quad 5^{\circ}$

Gigantea. Fine pink; flowers on very long stems; early
Hamlet. Pink flowers, long stems
$30 \quad 300$
$35 \quad 350$
$70 \quad 700$

Humei Carnea. Tender. Rose, passing to white. .
Jeanne d'Arc. Rose; sulphur and white center.
King of the Reds. Crimson.
Madame Geissler. Rosy lilac; large flower; early.

60600
40400
$3535^{\circ}$

Rosea Superbissima. Bright rose. Splendid clear color

35350
Thorbecki. Tender rose; center deep rose
Double Mixed White.

$40 \quad 400$


HERbaceous Peony

## Japanese Tree Pæonies

## (Paeonia arborea)

These are very beautiful and free flowering, and bloom two or three weeks earlier than the herbaceous sorts.
\$1. 25 each, $\$ 12$ per doz.
Comtesse de Tuder. Rosy white; very double.
Mons. Jules Orban. White, center wine color.
Purity. White, large, half-double flower.
Salmonea. Salmon and white.
Van Houttei. Rosy carmine, brownish center; large flowers

## Pæonia Tenuifolia

Very elegant plants with narrow -leaved feathery large foliage.
Double-flowering. Rich crimson........ $\begin{array}{r}\text { Each } \\ \hline 10\end{array} \begin{gathered}\text { Doz } \\ 400\end{gathered}$
Single-flowering. Rich crimson............ $25{ }^{2} 50$

## Pæonia Officinalis

| onæfiora. Crimson; anemone- |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Atro-rubra plena. |  |  |  |
| Mutabilis plena. Rose, passing to white |  |  |  |
| plendens. Dark red; half double....... . 40 |  |  |  |

J. M. Thorburn \& Co., New York. Wish to state that lily bulbs purchased of you last fall gave the best of satisfaction. I can simply say they were the finest I ever raised.

## J. M. THORBURN \& CO., 33 BARCLAY ST., NEW YORK

## LILIES

Lilies are easily grown and require little care. They do best in a light, well-drained soil. Some peat or leafmould may be used to advantage. They also prefer partial shade, and the taller sorts must have protection from high winds. L. auratum cannot bear manure but thrives in ordinary light soil.


## TIGRIDIAS

## Ready in April

These very handsome, summer-flowering bulbs should be planted in the spring. They will flower profusely all summer. The plants grow about 2 feet high, with large and finely colored flowers.

Canariensis. Very handsome, light Each Doz. yoo yellow, with brown spots........ \$o o8 \$o $60 \$ 400$ Cœlestis. Beautiful light blue $\ldots \ldots$..... 15 I $25 \quad 8 \quad 00$
Immaculata alba. Pure white, unspotted.

Speciosa pavonia. Bright crimson, Each Doz. 100
mottled yellow ................. \$o 10 \$0 75 \$5 00
Grandiflora alba. Large - flowered;
white, spotted crimson ........... o8 60400
Conchiflora. Yellow, spotted red.... 10 500

## AMARYLLIS

The most suitable soil is a good loam, with one-fourth part of leaf-mould or pulverized manure, and some sand. Good drainage is very important.


## TUBEROUS-ROOTED BEGONIAS

Splendid pot-plants for the house or for bedding. For bedding they should be started in hotbed in March and April.

| Single | Crimson. | Each <br> . \$o 10 | Doz. <br> $\$ 070$ | $\$ 4{ }^{100}$ | Single I | Mixed | Each <br> \$o 10 | $\begin{aligned} & \text { Doz. } \\ & \text { \$o } 70 \end{aligned}$ | $\begin{aligned} & 100 \\ & \$ 400 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{6}$ | Scarlet. | 10 | 70 | 400 | Double | White. | 15 | I 20 | 650 |
| '6 | Rose | 10 | 70 | 4 -0 | " | Yellow | 15 | I 20 | 650 |
| 6 | White | 10 | 70 | 400 | ، | Rose | 15. | I 20 | 650 |
| 6 | Y $\in$ llow | - | 70 | 400 | 6 | Scarlet | . 15 | I 20 | 650 |
| s | Pink | 10 | 70 | 400 | 6 | Mixed | - 15 | I 20 | 650 |

## BEGONIA CRISPA (Single Fringed Begonias)

These new Begonias have beautifully shaped, gracefully frilled and crested flowers borne above the foliage on long and erect stems. RED, ROSE, WHITE, YELLOW, and SALMON. 15 cts . each, $\$ 1.50$ per doz.

## CRINUMS

The most suitable soil is a compost of turfy loam, cow manure and sand. They should be grown in large pots or tubs, about three-fourths of the bulb being out of the soil. In late fall, remove to a cool house and allow to rest till new leaves begin to appear in February. If placed outside when warm weather begins, they will flower through the summer, making splendid lawn or veranda plants:

Giganteum, Giant White. Immense bulbs; large, Each white flowers; blooms all summer; very fragrant; they should be watered plentifully while growing
Amabile, Giant Pink. Extra large, bright pink, with white stripe; splendid flower; enormous bulb. This and the Giant White are unsurpassed for growing in tubs, blooming profusely outside all summer

Kirki. Large umbels of beautiful pure white flow- Each ers, with purple stripe in center of each petal; very fine . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ${ }^{\text {\$ }} \mathrm{o}_{\mathrm{s}}$
Powelli. Produces long stems, bearing at the top 5 to 8 large, dark rose, bell-shaped flowers, 3 to 4 inches long, of great beauty.
Powelli album. Pure white. A very beautiful sort. 75
Powelli intermedium. Light rose. ............... . I oo

## MONTBRETIAS

Hardy, summer-flowering, bulbous plants that are becoming more popular every year. They should be planted in groups and left undisturbed. Ordinary garden soil and a sunny position suit them.


[^7]See page 123 for prices and descriptions

## Miscellaneous Bulbs and Roots



# Insecticides and Remedies for Plant Diseases 

## ANTIPEST

Non-poisonous and harmless to vegetation. Mixed with water as follows, it is effectual against-greenfly, i pt. to 10 gals. of water; mealy bug, i pt. to $\mathrm{r} \frac{1}{2}$ gals.; red spider, I pt. to 2 gals.; ants, wireworms and slugs, I pt. to I gal. Qt., 60 cts.; $\frac{1}{2}$ gal. can $\$ 1$; gal. can, $\$ 2$.

## BUG DEATH

This is a fungicide, insecticide and plant-food combined. It is non-poisonous, and is extensively used for cabbage and tomato worms, potato and cucumber bugs. Apply with duster, bellows or powder gun, about $12 \frac{1}{2}$ lbs. to the acre. $\mathrm{r}-\mathrm{lb}$. pkg., 15 cts.; 3 -lb. pkg., 35 cts.; 5-lb. pkg., 50 cts.; $12 \frac{1}{2}$-lb. pkg., $\$$; ; roo-lb. pkg., $\$ 7.50$.

## COPPER SOLUTION, AMMONIATED

Prevents black and brown rot, mildew and other grape diseases; pear and apple scab, leaf blight, tomato rot, potato blight, melon blight, etc. Dilute 1 part to 100 parts of water; spray lightly. Qt., 50 cts.; gal. \$1.50.

## FIR-TREE OIL

For greenhouse and house plants. Destroys all insects without injuring the plant. The best insecticide for scale, aphis, red spider, etc. Dilute I pint to 20 gallons of water. Apply with vaporizer or syringe. $\frac{1}{2}$ pt., 40 cts .; pt., 75 cts.; qt., $\$ 1.25$; $\frac{1}{2}$ gal., $\$ 2.25$; gal., $\$ 4$.

## FIR-TREE-OIL SOAP

This is the same as the Fir-Tree Oil, but in soap form. It is useful for the same purposes. Mix at rate of 1 ounce to a gallon of water, and apply with bellows or syringe. $\frac{1}{2}$-lb. tin, 25 cts.; $2-\mathrm{lb}$. tin, 75 cts .

## DALMATIAN INSECT POWDER

Effective against almost all kinds of insects. Per $\frac{1}{2}-\mathrm{lb}$. box, 30 cts .; per $\mathrm{I}-\mathrm{lb}$. box, 50 cts .

## GISHURST'S COMPOUND

A certain remedy for greenfly, scale, mealy bug, etc. Excellent for greenhouse use. Full directions for use on each box. Per I-lb. box, 50 cts.

## HAMMOND'S GRAPE DUST

For the prevention of mildew on roses, grapes, gooseberries, etc. Apply with bellows. 5 -lb. package, 35 cts .; ro-lb. package, 60 cts.; roo lbs., $\$ 5$.

## HELLEBORE, POWDERED

An excellent protection from currant worms, grape slugs caterpillars, etc. May be applied dry or mixed in water-1 oz. to 3 gallons. $2-\mathrm{lb}$. box, 35 cts .; $\mathrm{r}-\mathrm{lb}$. box, 20 cts.; $\frac{1}{2}$-lb. box, 12 cts.

## HORICUM (HAMMOND'S)

A lime, sulphur and salt mixture entirely free from grit. For San José scale. One gallon makes twentyfive by adding sufficient water. Full directions on each can. Qt. 40 cts.; $\frac{1}{2}$-gal., 75 cts.; gal., \$1.25.

## KEROSENE EMULSION

For cabbage worms, scale on trees, caterpillars, melon louse, rose bugs, greenfly, etc., either on plants or animals. Dilute 25 to 50 parts. Qt., 40 cts.; gal., $\$$ r.

## LIME, SULPHUR AND SALT MIXTURE (California Wash)

For San José scale. Better than Whale-Oil Soap, Kerosene Emulsion or Crude Oil. One gallon makes 25 by simply adding water. Qt. 40 cts.; gal., \$1.

## BORDEAUX MIXTURE or FUNGIROID

For all fungous diseases, such as mildew, and the various rots of the grape. Full directions on label. Dry, $\mathrm{I}-\mathrm{lb}$. box, $20 \mathrm{cts} . ; 5 \mathrm{lbs}$. and over at 18 cts. per lb.; 50 lbs. for $\$ 7$; liquid, r qt., 40 cts .; I gal., $\$$ r. 25 .

## LEMON OIL

For destroying scale, caterpillar, mealy bug, etc., and for exterminating fleas and curing mange on dogs and other animals. Directions on can. Dilute with water 30 to 50 parts. $\frac{1}{2}$ pt., 25 c.; pt., 40 c.; qt., 75 c., gal., $\$ 2$.
"NICO-FUME" TOBACCO-PAPER
For fumigating greenhouses. It is the strongest Tobacco Paper on the market; does not injure blooms Packed in special friction-top tins and sold as follows 24 sheets, 75 cts.; 144 sheets, $\$ 3.50 ; 288$ sheets, $\$ 6.50$.

## NICO-FUME LIQUID

For spraying or fumigating. Effective against greenfly, mealy bug, etc. Does not stain or injure blooms, and leaves no disagreeable odor. For spraying, 1 to 2 teaspoonfuls to a gallon of water. $\frac{1}{4} \mathrm{pt}$., 50 cts.; pt., $\$ \mathrm{r} .50$; $\frac{1}{2}$ gal., $\$ 5.5^{\circ}$; gal., \$10.50.

## NICOTICIDE

For fumigating or spraying. For greenfly, mealy bug, etc. Does not damage foliage or flowers. Sold in cans as follows: No. I (i pt.), sufficient for 32,000 cubic feet of space, $\$ 2.50$ each; No. 2 ( $\frac{1}{2}$ pt.), sufficient for 16,000 cubic feet of space, $\$ 1.25$; No. 3 ( $\frac{1}{4} \mathrm{lb}$.), sufficient for 8,000 cubic feet of space, 70 cts.; gals., $\${ }^{5} 5$; $\frac{1}{2}$ gal., $\$ 8.25$ each; qts., $\$ 4.50$ each. Fumigators, 50 cts. each.

## PARIS GREEN

Mixed at the rate of 1 pound to 200 gallons of water. Effective against all chewing insects. Per $\mathrm{x}-\mathrm{lb}$. can, 40 c ; $\frac{1}{2}-\mathrm{lb}$. can, 25 cts . $\frac{1}{4}-\mathrm{lb}$. can, 18 cts . Fluctuates in price.

## STERLINGWORTH WEED KILLER

In powder form; dissolve in water. Destroys weeds, also briars, thistles, poison ivy, etc. I gal. covers 3 to 4 sq. yds. Directions on package. r-lb. pkg., making ${ }^{1} 5$ gals., covering 45 to 60 sq. yds., 50 ćts.; 3 -lb. pkg., making 45 gals., covering 130 to 180 sq. yds., \$1.25; 5 -lb. pkg., making 100 gals., covering 300 to 400 sq.yds.

## SLUG-SHOT (HAMMOND'S)

Excellent for destroying cabbage, turnip and beet fly, potato bugs, currant-worms, etc. Prepared ready for use. 5 -lb. pkg., 30 cts .; ro-lb. pkg., 50 cts.; 100 lbs., $\$ 4$.

## SULPHUR, POWDERED

Valuable for protecting against mildew on grapes, roses, etc. Lb., io cts.; ro lbs., 60 cts.; roo lbs., $\$ 4$.

## SULPHO-TOBACCO SOAP

Dissolve in proportion of 2 ounces to a gallon of water, and apply with a syringe or atomizer. It will destroy rose slugs, aphides, greenfly, bark-lice, etc. 3 -oz. box, ro cts.; 8 -oz. box, 20 cts.; $10-\mathrm{lb}$. box, $\$ 3$.

## TOBACCO DUST

If dusted on while the foliage is moist it destroys rose-lice, cabbage and turnip fleas, etc. Spread upon the ground, it keeps off all earth insects. Lb., io cts.; 5 lbs., 35 cts.; ro lbs. 60 cts.; 100 lbs., $\$ 2.75$.

## TOBACCO STEMS

For fumigating plants infested with greenfly. Per bale of about roo lbs., $\$ \mathrm{I} .50 ; 200 \mathrm{lbs}$., $\$ 2.75$; 400 lbs ., $\$ 4.50$.

## "ROSE LEAF" TOBACCO EXTRACT

A pure concentrated extract of tobacco, effective for destroying insects and scale. Pt., 30 c. ; qt., $50 \mathrm{c} . ;$ gal., $\$ 1.25$.

WHALE-OIL SOAP
For washing trees and destroying all insects on the bark. Excellent for San José scale. Mixed at the rate of I pound to 4 gallons of water it will rid cabbage, rose bushes, peach trees, etc., of aphides. r-lb. box, I5 cts.; 5 lbs., 50 cts.; 10 lbs., 90 cts.; 100 lbs., $\$ 7$.

## X. L. ALL LIQUID INSECTICIDE

For spraying. English preparation; purely nicotine; harmless to very delicate plants; kills mealy bug, red spider, and all insect pests. Pt., 65 cts.; qt., $\$ \mathrm{I} ; \frac{1}{2} \mathrm{gal}$., \$1.75; gal., \$3.50.

# High-Grade Fertilizers 

ALL NET CASH


#### Abstract

\section*{THORBURN'S COMPLETE MANURE}

Guaranteed to contain ammonia, 3 to 4 per cent; available phosphoric acid, 6 to 8 per cent; actual potash, 6 to 7 per cent; sulphate of magnesia, soda, lime, sulphuric acid, etc. Adapted for use on all crops, such as corn, tomatoes, potatoes, peas, beans and early vegetables, and is especially suited for grain crops. In 167 -lb. bag, per ton $\$ 40$ oo Single bags of 167 lbs . 400 Per bag of 100 lbs . 50 lbs. 275 25 lbs. I 65 ro lbs.


## THORBURN'S LAWN FERTILIZER

Guaranteed to contain ammonia, 6 to 7 per cent; available phosphoric acid, all soluble, 8 to io per cent; actual potash, 5 to 6 per cent; lime, sulphate of magnesia, soda, sulphuric acid, etc. Specially prepared for lawns and meadows, as a top-dressing, imparting to grass a rich green color and vigorous growth.
In $167-\mathrm{lb}$. bags, per ton
Single bag of 167 lbs .
\$50 00
Per bag of 100 lbs .
50 lbs.
500

25 lbs
$\begin{array}{ll}3 & 25 \\ 2 & 00\end{array}$
25 lbs
125
io lbs. 75

## ACME NO. 1 POTATO MANURE

Guaranteed to contain ammonia, 4 per cent; available phosphoric acid, 6 per cent; actual potash, io per cent; sulphate of magnesia, soda, lime, sulphuric acid, etc. This manure is for special use on the potato crop, and is also adapted for sweet potatoes, vines and fruit trees, and all leguminous plants.
In $167-\mathrm{lb}$. bags, per ton
$\$ 4400$
Single bags of 167 lbs .
$45^{\circ}$
Per bag of 100 lbs .

| 3 | 15 |
| :--- | :--- |
| 1 | 5 |
|  | 5 |

50 lbs .
25 lbs.
I 00
Io lbs.
THOMPSON'S VINE MANURE
Per cwt. (II 2 lbs .), $\$ 7$; $\frac{1}{2} \mathrm{cwt}$, ( 56 lbs .), $\$ 4$.

## CLAY'S CELEBRATED FERTILIZER

One of the best manures for all horticultural purposes, either in greenhouse or garden. Notwithstanding its apparently high price, is quite economical.

PRICES IN BAGS

|  | \$700 |
| :---: | :---: |
| $\frac{1}{2} \mathrm{cwt}$. ( 56 lbs .) | 400 |
| ${ }_{4}^{1} \mathrm{cwt}$. ( 28 lbs.$\left.\right)$ | 225 |
| $\frac{1}{8} \mathrm{cwt}$. ( 14 lbs.$\left.\right)$ | I 25 |

## CARTER'S WORM ERADICATING FERTILIZER <br> (Non-poisonous to Animal and Bird Life)

Stimulates the growth of the grass. Must not be used in frosty weather, and will be effective only when the worms are working near the surface. Pamphlet on application.
Per ton
$\frac{1}{2}$ ton
roo-lb. bag
F. o. b., Boston, Mass

BOWKER'S AMMONIATED FOOD FOR FLOWERS
The best dressing for potted plants. Small pkg., 15 cts. each; by mail, 25 cts. Large pkg., 25 cts. each; by mail, 45 cts.

## CANADA HARD-WOOD ASHES

Highest grade, extra screened, unleached. For topdressing lawns, especially if the soil is inclined to be stiff or sour, there is nothing better. Price, in barrels of a bout 200 lbs ., $\$ 3$; ton, $\$ 22$.

## STERLINGWORTH PLANT-FOOD TABLETS

(Contain nitrogen, ammonia, phosphoric acid and potash)
A scientific, odorless, concentrated fertilizer for potted plants. Used by dissolving in water. Largesize box, enough for 35 house plants for three months, 25 cts., postpaid.

## AGRICULTURAL SALT

For asparagus beds, etc., in barrels of about 400 lbs ., $\$ 2.50$ per bbl.; about $\$$ io per ton. Not less than one barrel sold.

## BON ARBOR (Liquid)

A highly concentrated plant-food. I gal. makes 100 gals. by simply adding water.
r-gal. keg
\$2 00
2-gal. keg
4 oo
5-gal. keg
925

## BONORA

A fertilizer and plant-food.
$\frac{1}{4}$ lb. package ....................................... So 25 I-lb. package . . . . . . . . . . . . . . . . . . . . . . . . . . . . 50 5-lb. package . .................................... 250

## PULVERIZED SHEEP MANURE

A rich, pure, natural manure. Excellent as a topdressing for lawns. Its effect is immediate and lasting. There is nothing better for mixing with the soil for greenhouse plants-one part manure to six parts soil. It is recommended for the vegetable-garden, promoting a steady and rapid growth. It makes a rich and safe liquid manure-I pound to 5 gallons oí water.
5-lb. package . . . . . . . . . . . . . . . . . . . . . . . . . . So 30 io lbs. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 50 50 lbs. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . I 25
 Ton . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3000

## BONE FERTILIZERS <br> Prices sublect to change

Pure Ground Bone Mieal, No. 1. Finely pulverized; excellent for rose-culture. It decomposes very rapidly, and is more quickly effective than the coarser grades. It is excellent for mixing with the soil tor potting. 5 lbs., 25 cts.; 50 lbs., $\$ 1.25$; 100 lbs., $\$ 2.25$; ton, $\$ 32$.
Ground Bone, No. 2. Coarser than the above, suitable for general purposes, for top-dressing for lawns, and for garden and field crops. roo-lb. bag, $\$ 2.25$; ton, $\$ 37$.
Ground Bone, No. 3. A little coarser than No. 2. 100 lbs., $\$ 2.75$; ton, $\$ 40$.

## OTHER FERTILIZERS <br> prices fluctuate

Tankage (Blood and Bone Fertilizer)
Imported Scotch Soot. In roo-lb. bags only
Nitrate of Soda.
Muriate of Potash
per $100-\mathrm{lb}$. bag, $\$ 2.75$; per $200-\mathrm{lb}$. bag, $\$ 5$; per ton, $\$ 40$ per bag, $\$ 4.25$. 5-1b. pkg.. 30 cts.; io-lb. pkg., 50 cts.; 50-lb. bag., $\$ 2$; ioolbs., $\$ 3.75$ 5-lb. pkg. 35 cts .; $10 \mathrm{lbs.}$,60 cts . ; $50 \mathrm{lbs} ., \$ 2.50$; $100 \mathrm{lbs} .$, about $\$ 4$


## Horticultural Implements and Garden Requisites

The numbers correspond to the illustration numbers on page 133


Each
$\mathrm{S}_{2} 50$
100
50
Granite State (Fig I $4 \frac{1}{2}$ )
Woodason's Double Cone Powder (Fig 22) . 300 Single Cone. Large size (Fig. 23) 200 Small size (Fig. 24) I 00
Atomizer. Large size (Fig. 25). 200
Small size.
25
BILL and BRUSH HOOKS, for heavy pruning . 275 BUG DUSTER, Dickey

25
CANES, Japanese Bamboo. 6 ft . long, $\mathrm{S}_{1}$ per 100 , $\$ 8$ per 1,$000 ; 8 \mathrm{ft}$. long, $\$_{1.50}$ per 100, \$12 per 1,000. No less than 100 sold.
CARNATION SUPPORTS, Model Extension (Fig. 45). 2-ring, 50 cts. per doz., $\$ 3$ per $100 ; 3$-ring, 60 cts. per doz., $\$ 3.50$ per 100. Each DIBBLES. All iron (Fig. 34) ...... \$o 35

Fertilizing. For transplanting, and also for inserting fertilizers 40 DAHLIA POLES. See under Plant Stakes.
EXTENSION POLE GRIPS
FLOWER VASES, POT SAUCERS and ROLLING STANDS. See page 136 .
FORKS, Digging or Spading
\$I to 125
Hay, or Stable. ................. 50 cts. to
English Strawberry Forks.
75
Englin 75
Manure, Long- and Short-Handled . . 85 c. to 125
FRUIT PICKERS, Peerless
Handy Andy
$\begin{array}{r}35 \\ 25 \\ \hline\end{array}$
FUMIGATOR, "Eureka." For fumigating with
tobacco stems (Fig. 39).
No. I holds $\frac{1}{2}$ peck stems.
I 50
No. 2 holds I peck stems.
200
No. 3 holds $\frac{1}{2}$ bushel stems
GARDEN LINES, Finest Braided.


GARDEN REELS, for above; of wrought iron (Fig. 46) 75 cts . and 1 oo
GARDEN PENCILS, Wolff's Indelible Black.
Fig. 46 GLAZING POINTS, The Tiger. 70 cts. per 1,000 ; pincers
Galvanized Staples....lb. box, 30 cts.
GLAZING PUTTY, Twemlow's Old English. Can be used with machine or bulb. 1, 2 and 3 gallons at $\$ 1.35$ per gal.; 5 - and rogallon buckets at $\$$ r. 20 per gal.
GLAZING PUTTY BULBS (Scollay's)
by mail, \$1.10.. I oo
GLOVES, Gardener's Goatskin . per. pair, $\$_{1}$.
GRAFTING WAX. In $\frac{1}{4}-, \frac{1}{2}$, and $\mathrm{I}-\mathrm{lb}$. packages.
GRASS BORDER SHEARS. See Shears.
GRASS EDGING KNIVES (English). . \$r. 75 to 225 GRASS HOOKS, or SICKLES, Best English, welded back.................. 50 cts. to HEDGE SHEARS. See Shears, page 135 HOES, Draw or Corn

70
Grub Draw or Corn
Grub.......................... to 125
Scuffle, Dutch, or Push, 4 to 10 in. (Fig. 31)........................ 50 cts. to

Triangular (Fig. 32)
Warren
65 cts., 70 cts. and

HORSE BOOTS. All leather. $\$ 9$ per set......
HOSE NOZZLE, "Bordeaux." For $\frac{1}{4}$-inch
Each pipe, or $\frac{1}{2}$-inch hose.

So 75
Gem Graduating, for $\frac{3}{4}$-inch hose ......... 00
HOSE MENDERS, Cooper's. $\frac{3}{4}-\mathrm{in}$... doz., $75^{\circ}$. 10
HOSE BANDS, for hose couplings... doz., 75c. Io
HOSE END, No. I. For connecting hose with ordinary faucets
HOSE HOLDERS, Burton's
HOSE, RUBBER, "Cascade," "Three-ply."
$\frac{3}{4}$-inch, per foot, 15 cts.

| \%-inch, per foot, is cts. |  |  |
| :---: | :---: | :---: |
| "Wallabou | ut" | 15 cts . |
| "Triton" | ....... . ${ }^{\text {a }}$ | 18 cts |
| "Electric" |  | 20 cts |
| HOTBED SASH. Best quality. Packing at cost. |  |  |
| Unglazed. $3 \times 6$ feet. . . . per doz |  |  |
| Glazed. 3 x 6 feet ...... |  |  |
| HYACINTH GLASSES. |  | 1.75 |
| KNIVES-- |  |  |
| Saynor's Celebrated English . Best |  |  |
|  | No. 938, Pruning ( | (Fig. 7) |
|  | No. 196, " 2 | 2 blades (Fig. 8). |
|  | No. 187, " | (Fig. 9) |
| N | No. 312, " ( | (Fig. 10) |
| N | No. 80, " ( | (Fig. II) |
|  | No. 400, Budding ( | (Fig. 12) |
|  | No. 401, " ( | (Fig. 13) |
|  | No. 343, " 2 | 2 blades |
|  |  |  |

Asparagus. English (saw blade) (Fig. 14) ... I 00 Granite State (Fig. I $4 \frac{1}{2}$ ) ... 50
Grass Edging, English (Fig. 15) ... \$1.75 to 225 LABELS, Wooden, Pot and Garden-


## HORTICULTURAL IMPLEMENTS AND GARDEN REQUISITES, continued



PRUNERS. Waters' Long-h andled Tree. 4 ft.. \$0 75 6 feet . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 80
8 6 . . . . . . 8 " 00

Extra Blades.
Little Giant Pruner and Saw combined 20
Stlle Gian Pruner and Saw 50
Saw, Cast Steel Socket. I8-inch ........... I 75 RAFFIA, for tying (Fig. 5I). Per lb., 20c.; 5 lbs. 9oc.; Iolbs.,\$I. 75 .

## RAKES-

"Automatic Lawn." (Fig. 43). 26-teeth size, 90c. each; 38teeth size, \$I.I5 each.
Fig. 51 The "Lawn King." Teeth very close. Will not tear sod as other lawn rakes do. 26- Each teeth size, 45 cts. each; 38 -teeth size...... \$0 60
Steel Wire, for lawns. "The Hustler.". . . 60
Wooden, for lawns. . . . . . . . . . . . . . . . . . . . 35
English, or Daisy (Fig. 44) ...........\$3 to 350
Steel Garden. Io-teeth to I8-teeth . . 50c. to 70
Hay, 3-bow (Wood)
30
REELS, Hose, Tubular Iron (Fig. 52.) Never break or wear out.
No. Io, for IOO feet $\frac{3}{4}$-inch hose........... 285
No. 20, for 150 feet $\frac{3}{4}$-inch hose. . . . . . . . . . 3 I 5
No. 30, for 500 feet $\frac{3}{4}$-inch hose. . . . . . . . . . 500


Fig. 52
ROLLERS. See page 142.
RUBBER HOSE. See hose, page 134 .
SAWS, Pruning, Double Edge.
Sizes 16 -, 18 -, 20 - and 22 inch. . . . . . . . 70 cts. to SCISSORS, Grape. See Shears.

Flower Gatherer . . \$1.25 and I 50 SCYTHES, English Lawn.

Cast steel, 30 to 38 inches.
$\$ 1.40$ to 175

SCYTHE SNATH, or HANDLE, Patent Loop Each
Heel . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . SI $_{\text {I }} 00$
SCYTHE STONES, Round Dressed Talacre doz., \$1.50. 15
10
Norton's Emery
SEED SOWER-
Little Giant . . . . . ............................. 200
Cahoon....................................... . . 375
SHEARS-
Perfection Pruning (Fig. I). The best made
No. I. 6 $\frac{1}{2}$ inches . . . . . . . . . . . . . . . . . . . . I 75

No. 3. $8 \frac{1}{2}$ " ${ }^{6}$. . . . . . . . . . . . . . . . . 250
No. 4. $9^{\frac{1}{2}}$ " .......................... 300
Watch-spring English Pruning (Fig. 2).... I 50
Wiss' Solid Steel, Hand-pruning. Two sizes. 9 inches.

225
Io ${ }^{\prime}$. .................................... 250
German Pruning. Brass contact spring. $8 \frac{1}{2}$ inches.
German Pruning, Ordinary .................. 75
Lopping, American. 2 feet. . . . . . . . . . . . . . . I 00 English . . . . . . . . . . . . . . . . . . . . . . . . 2 2 75
Waters' Long-handled Tree Pruners. See under Pruners.
Hedge, English (Fig. 3). 8-, 9-, and Io-inch blade............................ $\$ 2$ to 300
Hedge, Saynor's. with fly-nut. 8-inch, \$2.50;
 thinning the bunches.. 90 cts., \$r. 25 and I 50
Flower Gatherer, English (Fig. 5). \$1.25 and I 50 Kelly's

75
Grass Border, Best English (Fig. 6). 8, 9 and ro inches....... \$2.50, \$2.75, and 300
Spring Grass, English. For trimming grass I 25 American. 7 inches.......... I 00 6 inches......... 75
SHOVELS, Ames' Best Cast Steel. Square and diamond-pointed; long or short handles.. I 50
SPADES, Ames' Best Cast Steel . . . . . . . . . . . I 50
SPRAYERS. See pages 137 and 138 .
SPRINKLERS, all for $\frac{3}{4}$-inch hose.
Scollay's Rubber (Fig. 37). by mail, Si.Io.. I 00 Angle-neck Rubber by mail, \$I.IO. . I 00
Lawn, Peck's Improved (Fig. 42). Standard. 4 feet high. 4-arm sprinkler 8-arm sprinkler
................................ 350
Twin Comet. See page 137 ............... 500
Fountain No. I, Saucer-shaped Bottom .... 400
Brass Fountain, nothing to rust or get out of order
Water Witch, No. 3 . . . . . . . . . . . . . . . . . . . . . 75


Columbia. . . . . . . . . . . . . . . . . . . . . . . . . . . I 50
Rainbow . . . . . . . . . . . . . . . . . . . . . . . . . . . 25
Maid-of-the-Mist . . . . . . . . . . . . . . . . . . . . . . I 25
Hothouse. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 60
SULPHUR VAPORIZER, Campbell's Patent. Designed to vaporize sulphur in greenhouses without danger of the sulphur taking fire or disfiguring foliage. Useful for killing mildew or other fungous diseases.
No. I. For houses up to 5,000 cubic feet of space
No. 2. For houses up to ro,000 cubic feet. . 750

## J. M. THORBURN \& CO., 33 BARCLAY ST., NEW YORK

## HORTICULTURAL IMPLEMENTS AND GARDEN REQUISITES, continued

## THERMOMETERS- <br> Oxidized Metal Scale, Polished Back (Fig. I6)

 8-inch size. . . . . . . . . . . . . . . . . . . . . . So 75 10" "... ........................... 1 . 00 I2 " " 25Oxidized Metal Scale, Carved Back (Fig. 17) IO $_{\text {8-inch }}^{\text {size. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . } 70} 75$ 12 (1ng, Pol
Self-Registering, Polished Back (Fig. 18). ro-inch size. 12 . . . . . . . . . . . . . . . . . . . . . . . . . 250
Zinc Scale Distance. Io-inch size
Hotbed and Mushroom Bed (Fig. 19), boxwood, brass tip; for plunging..... \$1 and I 7
Copper, Red Spirit. 8-inch $5 \circ$
Japanned Tin Case (Fig. 20)
Self-Registering Japanned Case (Fig. 21). 8-inch size. 10 " I 2 300

TOMATO SUPPORTS doz., SI. 50
TORCH, Asbestos. For burning caterpillars. Small, 25 cts.; large
TREE SCRAPER. 5-inch
TROWELS. Solid TREE BRUSHES, shanks, cast steel (Fig. 33). 6 -inch, 50 cts. each; 7 -inch, 60 cts. each.
Transplanting. 25 and 50 cts. each.
TURFING IRONS, English. \$4 each.
TWINE, Green Smilax. 5oc. per lb.
Florists' Linen, on spools. \$1. 25 per lb.
VEGETABLE SCOOP, Wire. For Wire. For cleaning the bark.

Straight. 225 Curved. $25^{\circ}$

> handling potatoes, apples, etc.

Fig. 53
WATERING POTS, French Model. Brass joints two copper-faced roses. (Fig. 53).

The "Philadelphia," with brass joints and two copper-faced roses. 6-quart. 8-quart
10
12
200

WEEDERS, Lang's (Fig. 26)
Excelsior (Fig. 27)
Magic. Short handle, 25 cts.; long handle
New Hand (Fig. 28)
100
Piqua Lawn (Fig. 38)
8) ...

Cleveland Lawn (Fig. 29). Can be used easily and without stooping.

50
Lawn. For removing docks, dandelión, etc.; can also be used as an Asparagus knife. 50 cts ; each.


Fig. 54

WHEELBARROWS (Fig. 54). For garden use. Small, $\$ 2.25$; medium, $\$ 3.75$; large


Fig. 57 I 2-in., 3 casters. \$0 80 r4-in., 4 casters. 90 16-in., 4 casters.
forms of indurated fiber ware. I8-in., 4 casters. .. \$I 20 20-in., 4 casters. .. I 50

FLOWER POTS. The best make. Of size
to 3 inches we do not sell less than 100 of a size, and of larger sizes not less than a dozen. We pack carefully and in the most approved manner, but will not be responsible for breakage in transit. There is often some delay in getting pots from the factory, and we would therejore ask as much time as possible to fill orders. (Fig. 71).

Fig. 71
Size, height and
width, inside Per doz. $100 \quad 1,000$



FLOWER VASES (Fig. 55), for displaying cut-flowers. Made of indurated wood-fiber.
No. Diam. Depth Each - 8 inches, 13 inches ........ \$0 60 $5 \frac{1}{2}$ " 10 ".$\ldots \ldots$. 50 $\begin{array}{llllllll}2 & 4 \frac{1}{2} & \text { " } & 9 & \text { " } & \ldots & 45 \\ 3 & 4 & 6 & 6 & 6 & & & 35\end{array}$
FLOWER-POT SAUCERS, INDU-
Fig. 55 RATED WOOD-FIBER. Very
light and durable. Not porous, and will protect tables on which the plants stand.

|  | Each | Doz. |  | Each | Doz. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6 -inch | \$0 I2 | \$1 10 | 12 -inch | \$0 18 | \$1 75 |
| 8 " | 14 | I 25 | 14 | 20 | 200 |
| ) " | 16 | 150 |  |  |  |

FLOWER TUBS, COLUMBIA (Fig. 58). Made
of cypress timber. Natural varnish finish.


UNION PATTERN TREE TUBS (Fig. 59). Made of cypress timber painted green.



Fig. 58


Fig. 59

## SYRINGES, ETC.

Ladies' Syringe, with One Spray Rose. Length of barrel, $12 \frac{1 / 2}{2}$ inches ${ }^{2}$, diameter, 15 - 16 inches. No. $1, \$ 3$.
Ladies' Syringe, with Jet and Two Spray Roses. The two roses, when not in use, are screwed on the side of the barrel. Length of barrel, $14^{1 / 2}$ inches; diameter, I $5-16$ inches. No. 2, $\$ 4.50$.

Best Plate Valve Syringe, large size, with One Stream and Two Spray Roses, with side pieces on barrel. Length of barrel, 18 inches; diameter $1 \frac{1}{2}$ inches. (See Fig. 35, page I33.) No. 3, $\$ 6.50$.

Best Conical Valve Syringe, large size, with One Stream and Two Spray Roses, which are placed, when not in use, in the handle of the syringe. The handle is strongly mounted with a solid brass cap and ring. Length of barrel, 18 inches; diameter, $11 / 2$ inches. No. 4, \$7.

Best Conical Valve Syringe, large size, with One Spray Rose and Gooseneck Angle Joint turning in all directions, for washing the under surface of the leaves of plants and flowers, cleansing them from insects, etc. Length of barrel, 18 inches; diameter, $11 / 2$ inches. (See Fig. 36, page 133.) No. 6, $\$ 8$.


LENOX SPRAYER

Scollay's Rubber Sprinkler. For florists' use and window.gardening. \$r.

## Scollay's Angle-neck Rubber Sprinkler. For spraying under leaves. \$r.



MYERS' BUCKET SPRAY PUMP

Woodason's Atomizer. For the application of all liquid insecticides. $\$ 1.25$ and $\$ 2$.
Faultless Sprayer. 75 cts. and $\$$.
Pneumatic Sprayer. Reaches under the foliage. $\$ \mathrm{I}$ and $\$ 2$.
Lenox Sprayer. 35 cts.
Fountain No. 1 Sprinkler. Saucer-bottom; does not injure the turf; is moved from place to place by a rope. An excellent sprinkler that is highly recommended. \$4.

## COLUMBIA SPRINKLER

A revolving three-arm Sprinkler on legs. About 18 inches high. Price, $\$ \mathrm{r} .50$.

## BRASS FOUNTAIN SPRINKLER

Very simple in construction. Cannot rust or get out of order. Will not injure the lawn. Requires only ordinary pressure of water. Price, $\$ \mathrm{I}$ each.

## "TWIN COMET" LAWN SPRINKLER

The globe, or body, of the sprinkler is made in two parts, and, by means of the swiftly revolving arms and intermediate gears, the upper half is made to revolve slowly, carrying the hose nozzle from which a full stream of water is thrown out beyond the sprinkle of the arms. With an ordinary pressure of water-20 pounds or upwards-it will thoroughly sprinkle an area of 80 feet in diameter. Price, $\$ 5$.

## MYERS' IMPROVED BARREL SPRAY PUMP

Has bronze ball valves and brass seats ; the plunger is brass, fitted with hemp packing. Will handle hot, cold or any caustic mixture. The cylinder and discharge pipe are all brass. The air-chamber is 30 inches in length, enabling the pump to throw a uniform, constant and elastic spray. It has good leverage, is very powerful and easily operated, Price, complete with 5 feet of $1 / 2$-inch three-ply discharge hose and graduating Vermorel nozzle, $\$ 9$; 8 -foot iron pipe extension, 60 cts. extra.

## MYERS' BUCKET SPRAY PUMP

Being made of brass, it is not affected by the arsenites used for spraying. Easily operated ; throws a solid stream 50 feet. It is provided with a combination nozzle, and also with a sprinkler for flowers. For spraying large trees, an 8 -foot pipe extension is supplied for 60 cts. extra. This pump is also valuable for washing windows. Price, $\$ 4$.

## BLIZZARD HIGH-PRESSURE SPRAYER

An air-force sprayer for potatoes, fruit trees, etc. It is first charged with air and then it does the spraying with very little work. Galvanized iron tank. Price, $\$ 2$.

## KNAPSACK SPRAY PUMP

## For Vineyard, Orchard and Field Service

Made entirely of brass and copper, with ball valves and metal plunger all easily accessible. The discharge is at the bottom and the pump can be entirely drained of the liquid. It should be carried on the back with the straps crossed in front. The reservoir is made of heavy copper and will hold about five gallons.

Price complete; as shown in cut, with $3^{1 / 2}$ feet of $3 / 8$-inch discharge hose, Vermorel nozzle and lance for degorger, $\$ 15$. Special agitator, 75 cts. extra.


KNAPSACK SPRAY PUMP

## LEGGETT'S CHAMPION POWDER DUSTER

For distributing dry insecticides and fungicides such as Paris green, hellebore, sulphur, tobacco dust, fungiroid. Without tubes it is 27 inches long, but when the four tubes are attached it is io feet long. An invaluable machine for use in orchard, garden or field. The regular outfit consists of six nozzles, two straps, oil-


LEGGETT'S CHAMPION POWDER DU'STER


PATENTED.
"AUTO-SPRAY" PUMP

## LEGGETT'S BROWNIE POWDER DUSTER

Built on the same plan as the Champion; smaller and with only one nozzle. Price, $\$ 3.50$.

## JUMBO POWDER GUN

Suitable for persons having only a few plants to treat. It is 4 inches in diameter, holds 4 ounces of powder and serves its purpose admirably. Price, 25 cts .

## " AUTO-SPRAY" PUMP

A self-operating sprayer of simple construction, durable, easy to carry and to work. Made of galvanized iron or solid brass, with 4 -ply rubber hose. For spraying trees, shrubs, cleaning windows, etc. A perfect pump. Price, with brass tank and stop-cock nozzle, $\$ 6.75$; galvanized iron tank and stop-cock nozzle, $\$ 4.50$. Brass extension pipe, 2 feet, 45 cts. extra. Fitted with "Auto-Pop" nozzle, \$1 extra.

## WATER BARREL TRUCK

(Combined $\begin{gathered}\text { Sprinkler, Leaf-Rack and } \\ \text { Hand-Cart) }\end{gathered}$
The barrel is easily disconnected from the truck, either while full or empty. The following extra attachments can be furnished if required (I) Box with trunnions and spring catch, forming a dumping hand-cart. (2) Sprinkler for watering walks and lawns. (3) Leaf-rack.


Truck and barrel, $2 \frac{1 / 2}{6}$-inch tire.............. \$II $_{6}$ in 00
Sprinkler attachment ............... 1200
Sprinkler attachment............................ 325
Hand-cart box. . . ............................... 3 оо
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WATER BARREL TRUCK

If truck and trunnions are wanted without barrel, deduct $\$ 2.25$ from price of truck and barrel.

## RUBBER HOSE

We offer the following standard high-grade brands in 25 - and 50 -foot lengths. Polar. 5 -ply, $3 / 4$-inch Per foot Polar. 5-ply, 3/4-inch . . . . . . . . . . . . . . . . . . . . . . . . . \$0 12 Wallabout. 3-ply, 3/4-inch.
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Electric. $3 / 4$-inch

## LOWELL FOUNTAIN COMPRESSED-AIK SPRAYER

Galvanized steel, aluminum finish; capacity, three gallons. Tree


RUBBER HOSE attachment and galvanized funnel with brass strainer put in with every machine. The simplest compressed-air sprayer made. One charge sufficient to expel entire contents of tank. Price, $\$ 6$. Additional brass extensions for tree attachment, 2 feet long, 50 cts .


## CLARK'S DOUBLE-ACTION CUTAWAY HARROW <br> This Harrow will cut and reduce the toughest sod to plant

 food without the aid of a plow. It will cut from 28 to 30 acres, or will double-cut 15 acres in a day. Drawn by two horses, it will move 18,000 tons of earth I foot in a day. It can be set so as to move the earth but little or at so great an angle as to move all the earth i foot. It keeps the surface true and the machine runs true in line of draft. It is by the intensive cultivation effected by this Harrow that the late Mr. Geo. W. Clark raised the large hay crops that made him known as the "Grass King." Price, $\$ 31$, net, f. o. b. factory. (Conn.)
## CUTAWAY GRADING, or SMOOTHING AND LEVELING HARROW

With this tool any field can be made as smooth as a floor and the soil pulverized fine enough for a flower-bed-makes a most perfect onion bed. Will smooth an acre as true as a mill-pond in twenty minutes. This Harrow is also a great road-maker. One man with team, can make a perfect trotting track of any road. It is adjustable with a lever, by which the entire action is controlled by the driver, and he can remove at will all the earth possible for the team to haul, taking it from hills or uneven places and putting it into hollows tơ level up the field. For one horse, 6 feet wide, $\$ 13$. For two horses, 8 feet wide, $\$ 15.50$, f. o. b. factory. (Conn.)


CUTAWAY GRADING, OR SMOOTHING AND LEVELING HARROW

## THE NORCROSS HAND GARDEN CULTIVATOR

Made of first-class material, the teeth forged from a solid steel rod. Can be entirely taken apart, every piece being detachable. Works between the rows, or center tooth can be removed to straddle the row. Does the work easier and faster than a wheel-plow. Price, \$I each.

THE GEM LAWN

A revolving fan with metal teeth creates an air current which carries into the cut by the lawn mower. It combines strength and durability with light construction. Price, $\$ 16$.

## LAWN SWEEPER, MODEL NO. 1

Designed for use on ordinary lawns, small parks, tennis courts, etc. It is 25 inches wide over all, weighs 28 pounds, and carries a


LAWN SWEEPER, MODEL NO. I 2I-inch brush. The brush is fan-shaped, and revolves very rapidly in the same direction as the drive wheels, throwing the litter backward from the under surface. Immediately

CLEANER canvas baskets all leaves, dead grass, stones, etc., that the rake encounters. It straightens up crab grass and other running weeds so that they may be

## STEVENS HANDFERTILIZER SOWER

Sows all kinds of lawn dressing and other commercial fertilizers, wood-ashes, lime, etc., in large or very small quantities. Also excellent for sifting wood or coalashes, sawdust or dry sand on icy walks; by removing two blades will also sow damp sand. The hopper is 34 inches long and holds one and onehalf bushels. Price, \$12.

the gem lawn cleaner behind the brush, and parallel with it, a thin shoe passes along over the ground, with its upper surface inclined. If sticks or stones are encountered, the shoe does not allow them to pass under it, but provides a passage over it into the hopper. Price, $\$ 12$.

## THE APOLLO LAWN SWEEPER

The machine consists of a revolving brush which throws the sweepings forward into the large grass box attachment, which, when full, is dumped by merely pulling a cord. It removes all cut grass, leaves, twigs, etc., and by setting it low it is excellent for taking out crab grass. It is also valuable for sweeping garden walks, stables, etc. Price, 20 -inch sweep, $\$ 12$ each; 28 -inch, sweep, \$14 each.


## "Planet Jr." Farm and Garden Tools

Illustrated catalogue describing fully many other "Planet Jr." tools mailed on application. Prices are quoted net f. o. b. New York.
"PLANET JR." No. 4. Combined Hill and Drill Seeder and Wheel-hoe, Cultivator and Plow. It sows all kinds of garden seeds in hills or drills; hoes, cultivates, plows, throws earth to or from the rows and is a weed exterminator of the highest order. It is the best implement in the world for the market-gardener. The hopper holds two quarts of seed, which can be sown in continuous rows or dropped in hills $4,6,8$, 12 or 24 inches apart. It covers seed the right depth and rolls down the soil. The flow is instantly stopped by automatic device. The price with all attachments, $\$ 1$ I ; as a seeder only, $\$ 9$.
"PLANET JR." No. II. Double Wheel-hoe, Cultivator, Rake and Plow. It has Ir-inch wheels, which can be set at four different distances apart. The handles are adjustable at any height, and, being attached to the arch, are undisturbed in making changes of adjustment in frame, wheels or tools. Seven pairs of tools go with the complete wheel-hoe. All the blades are of tempered and polished steel. Price, $\$ 9$.
"PLANET JR." No. 12. Double Wheel-hoe, Cultivator and Plow: Identical with No. II Wheel-hoe, except that it has fewer attachments, and is sold at a correspondingly less price. Price, $\$ 7$.
"PLANET JR." No, 16. Single Wheel-hoe, Cultivator, Rake and Plow. This Single Wheel-hoe has a very full set of tools, such as have been found to work in the very best manner. It has II-inch wheel, with broad face; is light, strong and easy running. It has adjustable handles and quickchange frame. The tools are a well-shaped plow, a pair of shield hoes and three all-steel patent cultivator teeth; also a set of two rakes, just the thing for preparing ground for the seed drill. A practical leaf-guard holds up the plants, while thorough work is being done underneath. Price, $\$ 5.85$.
"PLANET JR." No. I7. Single Wheel-hoe Cultivator and Plow. Tools are a plow of superior design complete with land-side, large, and capable of heavy work ; a set of three cultivator teeth of new design and adjustable for pitch ; one pair 6 -inch hoes. Price, complete, $\$ 5$. cially designed for the farmer's garden work, though it offers to every one with field or garden a cheap and effective tool for hand wheel-hoe operations. The wheel is high, the standard is slotted to make regulation of depth easy, and an adjustable malleable piece carries perfectly all the steels that go with the machine. Price, $\$ 3.75$.

## SPRAY YOUR TREES IN WINTER IF YOU WANT TO RID THEM OF THE DEADLY SAN JOSE SCALE

We recommend the following preparations:
HORICUM (Hammond's). A lime, sulphur and salt mixture entirely free from grit. One gallon makes 25 by adding sufficient water. Full directions on can. Qt. 40 cts., $1 / 2$ gal. 75 cts., gal. $\$ \mathrm{I} .25$.
LIME, SULPHUR AND SALT MIXTURE (California Wash). Better than whale-oil soap, kerosene emulsion or crude oil. One gallon makes 25 by simply adding water. Qt. 40 cts., gal. \$r.
SCALECIDE. Petroleum oil that mixes at once with cold water in any proportion, and stays mixed. It is not necessary to use an extra tank or barrel ; it can be put right into the spray tank. No hot water should be used. Can be prepared in an instant by simply adding one gallon of Scalecide for every ${ }^{1} 5$ or 20 gallons of water. Qt. 40 cts., gal. $\$ \mathrm{r}, 5$ gals. $\$ 3.25$.

## COOPER'S TREE SPRAY FLUIDS

The most effective remedies yet discovered for San José scale and kindred troubles. No sediment to clog nozzles. Can be mixed instantly with cold water.
V1 FLUID. For winter or spring use on dormant trees. Kills San José scale, oyster-shell scale, eggs of insects, spores of fungi, mosses and lichens.
V2 FLUID. For summer use when trees are in bud or leaf. Kills codling worms, oyster-shell scale insect, woolly and all forms of aphis, pear and apple psylla without injury to leaf or blossom.
One gallon of either fluid mixed with cold water makes roo gallons of mixture.
Price of either fluid, qt. $\$ 1,1 / 2 \mathrm{gal} . \$ 1.75$, gal. $\$ 3,5$ gals. $\$ 14$
For Insecticides other than the above, see page 131


The Thorburn Century

Ball-bearing, made expressly for us, is, in every respect, THE BEST LAWN MOWER ever made.

THORBURN'S CENTURY BALL-BEARING LAWN MOWER is a marvel of simplicity, as one screw adjusts both bearings. It has a simple, self-adjusting device, which keeps the bearing properly adjusted for a long time without any attention; it has double interchangeable ratchet; bearings wide apart; terrace-cutting arrangement, and will do a greater variety of work, and do it easier, than any ball-bearing mower now on the market. Patent Noiseless Grass Catcher, as quoted below, can be applied to it.

NET PRICES OF THORBURN'S CENTURY BALL-BEARING MOWERS

| 14 -inch cut | \$850 | I8-inch cut . . . . . . . . . . . . . . . . $\$$ ro 50 |
| :---: | :---: | :---: |
| 16-inch cut | 950 | 20-inch cut . . . . . . . . . . . . . . . . II 50 |

## Grass Catcher Boxes



## NEW REGAL LAWN MOWER



This mower is made to meet the demand for a machine that will more perfectly cut borders, verges, etc., and yet retain all the other features necessary in a mower for general work. The great advantage of this mower is the substitution of a bicycle chain for the gears generally used in this style of mower. This reduces the friction to a minimum. The machine with six blades is highly recommended by most of the leading golf clubs in America for work on putting greens.



## Coldwell Improved Horse Lawn Mower

This well-known standard Mower has sidedraft attachment, to enable the horse to walk on the cut grass only, and caster-rollers which will not mark the lawn Evenness of cut is assured by an adjustment which raises or lowers the two sides at the same time by means of a simple lever movement; the same lever serves the purpose of raising the knives from the ground when driving over gravel walks or roads.
NET PRICES free on board New York
25-inch cut, no shafts . . . . . . . . . . . $\$ 38$ oo ${ }^{25}$-inch cut, complete . . . . . . . . . . . $\$ 7800$
30 -inch cut, complete . . . . . . . . . . . 6500 40-inch cut, complete
9500

## Capitol Lawn Trimmer and Edger

For trimming close to walls or fences. A useful labor-saving device. Price, $\$ 6$ each.

## Cast-Iron Hand Lawn Rollers



## CAST-IRON HAND LAWN ROLLERS <br> (With Ball-bearings)

|  | Diameter | Length-sections |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No 402. | ${ }^{1} 5$ inches ; | 24 | che |  |
| No. 407. | 20 | 24 |  | " 2 |
| No. 410. | 24 | 24 | , | ${ }^{6}$ |
| No. 4II. | 24 | 24 | " | " |
| No. 412. | 24 | 30 | " |  |
| No. 415. | 28 | 30 |  |  |



## HORSE BOOTS

Made of very strong, heavy leather, closely riveted. Price per set of 4, \$9.

## Farmogerm

A preparation of high-bred nitrogen-gathering bacteria in sealed bottles, ready for use, with water added according to directions. Bottles contain enough Farmogerm to inoculate the seed for one acre. Prepared for the following crops :

Price, per acre, \$2. State for what crop Farmogerm is wanted when ordering

| White Clover | Alsike Clover | Canada Field Peas | Soy Beans |
| :--- | :--- | :--- | :--- |
| Red Clover | Alfalfa Clover | Garden Peas | Garden Beans |
| Crimson Clover | Cow Peas | Sweet Peas | Vetches |

Also in garden sizes, enough for 1,000 square feet or a 200 -foot row, for Peas, Beans, Sweet Peas and White Clover, at 50 cents per bottle. We secure cultures fresh from the laboratory as required, hence it takes two or three days to fill orders.

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